CITY AND ROYAL BURGH OF EDINBURGH

ANNUAL REPORT

OF THE

PUBLIC HEALTH DEPARTMENT

FOR THE YEAR

1946

BY THE

MEDICAL OFFICER OF HEALTH

7—500/6/47

With

Dr. W. G. Clark's

Compliments.

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PHOTOGRAPHS.

Public Health Department,
Johnston Terrace,
Edinburgh, *July* 1947.

To

The Department of Health for Scotland and
The Right Honourable the Lord Provost,
Magistrates and Council of the City of Edinburgh.

My Lord Provost, Ladies and Gentlemen,

I have the honour to submit the Annual Report of the Public Health Department for the year 1946.

1. Peacetime Tendencies.—Demobilisation of the armed forces had reached an advanced stage during 1946, and for many citizens the year was a period of settling down to normal occupations and a resumption of family life. The return of so many of the younger generation doubtless had a favourable influence on the health of the community. Infectious diseases, for example, were singularly light in their incidence. It could not be said that the weather had any abnormal influence. Scotland had a mild spring and a wet summer, but there were dry months in the spring and late autumn which offset the heavy rain in September. Actually the year's rainfall was only five per cent. above average. Edinburgh's rain was below the average and the hours of bright sunshine—1,464—was one of the highest totals in Scotland.

Nevertheless, some of the city's health indicators showed that the favourable trends which encouraged us during the war years had not been maintained. The death-rate was down and the birth-rate was up, but fears about an increase in tuberculosis were fully realised, and it was a disappointment to find the infant mortality rate going up to 52 deaths of infants under one year per thousand births after it had fallen from 68 to 50 in the preceding six years. It may be accepted that the greater incidence of tuberculosis is the inevitable aftermath of wartime strain. The higher infant mortality can be accounted for by more deaths from diarrhœa and enteritis.

Broadly, however, the health position appeared to be one of marking time. Whether people are obtaining enough of the protective foods is an open question. It is understandable that children and expectant mothers should receive special consideration, but at the other end of the scale there are single persons and the members of small households who find food problems acute and whose resistance to disease is liable to flag. Food apart, the shortage of houses will remain an obstacle to health progress for years to come. Reduced hours of work should have a beneficial effect in some industries, but there is need for education in the better use of leisure, especially by young people in winter-time.

2. Vital Statistics.—The year was notable for a fall in the death-rate and a sharp rise in the birth-rate. There were 9,350 live births, equal to a birth-rate of 19·5 per 1000 of the population, as compared with 7,362 births and a rate of 15·4 in the preceding year. The birth-rate was the highest in the City for 22 years.

This was in accordance with expectations and agrees with the experience of the period following the first world war. Marriages, however, were less numerous, the number being 4,878 as compared with 5,523 in 1945. Although the marriages included those of non-citizens who met in Edinburgh for the purpose, the falling-off is an indication that the prevailing high birth-rate may not be maintained for long.

The fall in the death-rate from 14·4 per 1000 of the population in 1945 to 14·1 per 1000 in 1946 may be ascribed to the increase in population due to the return of personnel from the forces. There were 6,485 deaths in 1946 as compared with 6,147 in the previous year. On the other hand the number of persons estimated to be resident in the City at mid-year went up from 426,280 to 459,430 and the death-rate was reduced by 0·3 per 1000.

Among causes of death malignant diseases showed a slight decrease, although the total of 955 was still formidable and emphasised the need for early diagnosis and treatment of and research into cancer. Deaths from respiratory tuberculosis increased from 218 to 292, and in the epidemic group 104 deaths of children under two years of age from diarrhœa and enteritis had an influence in causing the infant mortality rate to have an upward turn for the first time since 1940.

3. Child Welfare Activities.—The year was one of exceptional activity on the part of the Maternity and Child Welfare Department, and the foresight of the Public Health Committee in providing new centres and increasing the staff of health visitors was fully justified. In stressing the value of ante-natal care the health visitors achieved a noteworthy degree of success, the number of new cases seen at the ante-natal clinics being 10,433 as compared with 7,646 in the previous year. This meant that almost nine out of every ten expectant mothers sought advice and treatment at the City's clinics.

Pressure on beds in the maternity hospitals placed a duty on doctors and health visitors of determining which cases could be treated at home with the least inconvenience and discomfort to the patient and her family. In this connection the organisation of the Domiciliary Maternity Services Scheme proved valuable, especially when it was supplemented by the services of a home help. There was a steady demand for our twenty home-helps to overtake domestic duties not only in maternity cases but in emergencies of other kinds, and a further increase in the number has been sanctioned.

One disappointment to child welfare workers was to find the infant mortality rate rising for the first time in six years. In 1940 the rate was 68 (*i.e.*, 68 deaths of infants under one year per thousand live births), and throughout the war the rate fell consistently until 50 was reached in 1945. The rate in 1946 was 52. This was still below the Scottish rate, which last year fell from 56 to 54, but was above that of Dundee, which dropped from 57 to 47, and of Aberdeen where the drop was from 54 to 42 per thousand. At 67 Glasgow's rate was one per thousand below the previous year. As has been noted already, the abnormal number of deaths from diarrhœa and enteritis contributed largely to the higher infant mortality in Edinburgh.

A satisfactory feature of the Maternity and Child Welfare Department is the ready acceptance of its services among those for whom they are intended. This spirit of goodwill has grown with the years, and it is fitting that tribute should be paid to Dr. T. Y. Finlay, the Medical Officer who has been in charge of the Scheme since its inception nearly thirty years ago and who is due to retire in 1947.

4. Maternity Services.—Pressure on the heavily burdened maternity services was increased by the rising birth-rate. During the year it was found possible to provide a further 15 beds and cots at the Eastern General Hospital, but this extra accommodation could not be fully utilised owing to lack of nurses. The additional beds have the disadvantage of being separated from the main unit, but plans are approved for a new centralised maternity block with 44 beds and cots.

At the Western General Hospital, the heavy list of applications for admission was met to some extent by reducing the period of stay in hospital. Between them, the Western and the Eastern General Hospitals received 2,244 maternity patients in 1946 as compared with 1,705 in the previous year. Owing to the restricted nature of the accommodation, overcrowding and long waits were inevitable at the ante-natal clinics, which at the Western dealt with 1,887 patients in the year. Plans to overcome this drawback are included in the new "Follow-up" Department, which is in the blue-print stage but cannot proceed until men and material are available.

When hospital beds could not be provided, our health visitors did their best to arrange confinements at home under the Domiciliary Maternity Services Scheme, and 1,745 women were accommodated in this way during the year. Most of this work is done by nurses from the voluntary maternity hospitals, but our own Western General Hospital will shortly take a share in the Northern district of the City and this will provide what is known as Part II. training for midwives. Thirty-four general practitioners in the City have agreed to accept assignments under the Domiciliary Maternity Services Scheme.

5. Children's Nurseries.—The re-organised group of 17 children's nurseries, five of them providing overnight care, functioned satisfactorily during the year. Staffing difficulties were not wholly overcome, but it is expected that recruitment will be stimulated by the new nursery nurses' hostel at Chester Street, where a home is provided for girls coming from other parts of the country. A scheme of training for nursery nurses in Scotland is at present being drafted, the object being to hold examinations under Scottish conditions and issue certificates that will be recognised nationally. It is hoped that some of those who train as nursery nurses will go on to become general trained or fever nurses.

The nurseries have places for 105 children requiring overnight care and 570 for children in need of day care only. In addition, the City Social Services Department administer children's homes at St. Katharine's (50 beds), Redhall (40 beds), Canaan Lodge (120 beds), and Clerwood House (45 beds). The aggregate accommodation provided by the Corporation for children is 570 places in day nurseries, and 360 in institutions. Medical supervision of all these children is maintained by officers of the Maternity and Child Welfare Department.

6. School Children.—For the first time since before the war, this Report gives details of the organisation of the School Medical Service, and an analysis of the conditions revealed by medical and dental inspection. The statement follows the pattern laid down by the Department of Health for Scotland, and is rich in statistical detail. It will be appreciated that much of the work done among our 57,000 children in 125 schools represents prevention of the most valuable kind. Dental officers, for example, made 15,233 examinations and treated 7,836 children, representing increases of 3,000 and 2,600 over the previous year. It is noteworthy that the number of permanent teeth conserved substantially exceeded the number

extracted, and that the percentage of children accepting treatment continued to rise. The dental van on wheels is a factor in increasing the acceptance rate, which, however, should be much higher than 59·5 per cent. In this matter it is difficult to overcome parental apathy, although we endeavour to emphasise dental hygiene in health education.

School medical officers throughout the year made over 32,000 routine and special inspections, and advice to parents that their children required treatment was sent in 12,685 instances. Many of these children had slight physical defects which might have become serious if allowed to go unheeded. Headmasters can always draw attention to special cases where medical advice is indicated, but there is need for a more frequent systematic examination than at the age of 5, 9 and 13 years. Similarly, the ideal in dentistry is that each child should receive at least one routine inspection per annum. These reforms are under active consideration.

The degree of unfitness among school children is indicated by the results of class inspections, which showed that 25·4 per cent. of those examined had a slight defect and 4·7 per cent. had a marked defect. Altogether 9,631 cards were issued to parents, and almost 60 per cent. of them related to head conditions. This high proportion is partly due to the fact that classes known to be the least satisfactory are selected for inspection. In some quarters of the City cleanliness is a virtue that requires to be preached without ceasing.

A review of the activities of the Child Guidance Clinic shows that since it opened in December 1942, 1,215 cases were investigated. The number closed was 779, of which 98 were adjusted, 264 improved, 91 not improved and 326 transferred to other hospitals, clinics or services, or to other areas. These figures represent much effort in enabling problem children to adjust themselves to their environment and to enjoy the benefits of school life. Follow-up work by the psychiatric social workers is also of value in creating a good understanding between parents and children. The Child Guidance Clinic has developed into a greatly appreciated service, and is one of the brightest centres dealing with children.

7. Diphtheria Immunisation.—Throughout Great Britain the campaign for immunisation against diphtheria is being reflected in falling death-rates and a lowered incidence of the disease. Edinburgh's experience in 1946 ran true to this general trend, the number of confirmed cases being 172 and the deaths 10, both record low figures. In the previous year there were 362 cases and 13 deaths. In all, 6,773 children received the two prescribed inoculations during the year and a further 5,666 school children who had been previously immunised received one injection as a maintenance dose. These returns were lower than in the previous year when an intensive campaign lasting several months helped to build up a total of 11,550 immunisations. Despite appeals on posters and in newspaper advertisements, too many mothers are still slow to realise the value of this simple form of prevention. An impending increase in the number of health visitors will, it is hoped, have some effect in breaking down apathy. Since demobilisation a larger number of general practitioners have taken part in the scheme, and their influence is considerable. While a higher acceptance rate is desirable, the immunisation results of the past six years during which large-scale facilities have been offered are not unimpressive. In these six years over 90,000 children have been inoculated in Edinburgh and the incidence of diphtheria has decreased substantially. A significant feature of the statistics is that in the past six years diphtheria deaths were down to 109 compared with 219 in the preceding six years.

8. Infectious Diseases.—The notifications of infectious diseases during 1946 showed one of the smallest totals for many years. In the case of diphtheria and scarlet fever the figures were the lowest on record. Of scarlet fever there were 434 cases as compared with 1,029 the previous year, and for the first time in City records there were no deaths from the disease.

Notifications of measles dropped from 2,920 to 2,064, and the deaths numbered four as compared with 16 a year earlier. Whooping-cough was also less frequently notified and was of a milder type, there being 483 cases and seven deaths as compared with 494 cases and 17 deaths in the previous year. An increased case mortality was returned for cerebro-spinal fever of which there were 73 notifications and ten deaths as compared with 55 cases and four deaths in 1945.

A welcome feature of the infectious disease returns was a drop in notifications of dysentery, which were down to 149 as compared with 752 in 1945. This was more in keeping with conditions before the war, when the average for five years was 114. During the six years of war the average was 460.

9. Tuberculosis.—It comes as no surprise to find the Tuberculosis Officer reporting one of the busiest years in the history of his Department. The track of war is shown in the rising scale of notifications and deaths from tuberculosis since 1939. For respiratory tuberculosis the notifications were 592 as compared with an average of 465 for the five years before the war; the deaths for the corresponding periods were 292 and 285. The figures for non-pulmonary tuberculosis, which is less rife than the respiratory form, showed a slight improvement, but the ravages of the two forms of the disease are obvious and will be specially disturbing when it is pointed out that the sufferers belong mainly to the wage-earning age-groups. In a table printed this year for the first time, the Tuberculosis Officer gives an analysis showing that 2,675 persons resident in the City at 31st December 1946 suffered from tuberculosis. Of that number, 1,785 or fully 66 per cent., belonged to age-groups from 15 to 45 years of age. The highest number in any age-group is 676 and it is found in the 15-25 column—a reminder that tuberculosis takes heavy toll of the flower of our youth.

For this disappointing revelation it is easy to blame the war. We are paying in lives and ruined health for the stresses and deprivations of 1939-45. Some of the evils are not yet abated. Overcrowding will continue for some years and food shortages throughout the world will tend to weaken bodily resistance to disease. With these things as they are, it is difficult to see how the T.B. menace can be arrested except by ensuring that facilities for early diagnosis and treatment are maintained at the highest level. This we have attempted to do in Edinburgh.

During the year the Mass Radiography Unit accomplished a valuable piece of preventive work by examining 27,613 citizens. Of that number 755 or 2·73 per cent. were recalled for large film investigation, and 523 or 1·89 per cent. were recalled for clinical examination. The number of examinees diagnosed as suffering from post-primary pulmonary tuberculosis was 274. From these figures it is apparent that early signs of disease were discovered in many persons who had no symptoms and were unaware that their health was in jeopardy. The unit does much to answer the Tuberculosis Officer's repeated injunction that early diagnosis greatly enhances the patient's chance of recovery. Visitors to the Mass Radiography Unit have been impressed by the quick through-put of examinees. The time for registration, undressing, photographing and redressing is usually a matter of minutes. This has encouraged employers to send their operatives during working

hours. There is, however, scope for better organisation to maintain and regulate the flow of examinees.

The heavy burden carried by the Tuberculosis Officer and his staff is reflected in the record number of attendances at the two dispensaries—20,898 at the Royal Victoria Dispensary and 2,681 at Leith Dispensary. In addition, 14,039 visits to patients in their homes were made by doctors and health visitors. The almoner continues her good work in arranging maintenance allowances for those eligible to receive them and in relieving patients of worries that crop up when illness enters the home.

10. Venereal Diseases.—The return to civil life of personnel from the forces coincided with an increase in the numbers attending our clinics for the treatment of venereal diseases. There were 5,979 new cases as compared with 4,276 in 1945, and hospital admissions increased from 1,127 to 1,227. On the other hand, out-patient attendances dropped from 74,771 in 1945 to 69,171 in 1946, due to the adoption of a new method of recording attendances.

Increases were recorded in all forms of venereal infections, and particularly in gonorrhœa, where the figures were the highest reached in recent years, exceeding even the peaks recorded in 1941 and 1942. The use of penicillin has improved the cure-rate besides shortening the period of treatment in venereal conditions. The change indeed has been quite revolutionary. Our medical officers conducted investigations in the use of other drugs in association with penicillin and have published the results, which indicate that the technique of administering treatment has reached a high standard and is constantly being reviewed.

Despite the increased number of patients, the percentage of defaulters, 14·1 was the lowest since before the war. The nurse-almoner continues to render a valuable service in persuading patients to return to the clinics for completion of treatment. Towards that end the stimulus of Regulation 33B had some effect and with the war now over, it is a point for consideration whether this emergency measure should not be replaced by something more stringent.

11. General Hospitals.—Of the three general hospitals, the Western alone was able to maintain an adequate nursing staff and to cope with an increased number of patients. The Southern and the Eastern, not being training schools, were handicapped by a shortage of nurses throughout the year and it was found necessary to continue the practice of regulating the admission of patients in accordance with the staff available. On 30th April 1946 the Southern General Hospital's connection with the Emergency Medical Service came to an end. From 8th February 1942 to 30th April 1946 the E.M.S. cases treated in the wards of this hospital numbered 7,395. These included Norwegians, German prisoners of war, members of the Auxiliary Territorial Service, British service men and London hospital evacuees. Having served its wartime function with credit, the hospital is now to return to the control of the City Social Services Department as a home for elderly people. Its place in the Public Health Service is taken by the Northern General Hospital —an exchange which reverses the emergency move made in 1939.

Despite staffing difficulties, the Eastern General Hospital admitted 630 patients under the E.M.S. scheme, including 429 service men treated in the Tropical Diseases Unit. The original accommodation of the Maternity Unit was 16 beds and cots but the provision of a further 15 beds and cots could not be fully utilised for lack of nurses. The number of children born in the wards during the year was 436

compared with 275 in the previous year. Plans have been approved for the erection, within the hospital grounds, of a new maternity unit.

With 5,087 admissions and 20,868 out-patient attendances the Western General Hospital had the busiest year in its history. To these figures must be added 1,505 admissions and 24,248 out-patient attendances at the Paderewski Hospital. All sections shared in the increased volume of work and it was clear that the hospital is holding its place in public esteem and that its reputation as a training school for nurses is being maintained. Pass marks were gained by all the 32 candidates trained for Part I. of the Central Midwives Board examination and arrangements have now been made for the provision of training in Part II. of the syllabus, which involves domiciliary midwifery work in the northern district of the City. Apart from this special midwifery training, recruitment of girls beginning their career in general nursing was steady and the results were encouraging.

Some of the hospital units, notably surgery and maternity, could have used more beds had they been available and pressure was particularly heavy on the follow-up accommodation. Plans for a new follow-up department are ready, but progress will depend on manpower and materials. It has, however, been possible to effect immediate improvements in other directions. The staffs of the physiotherapy and radiography sections have been strengthened, an almoner is in daily attendance and patients enjoy a regular supply of books arranged by the City Librarian. The library service, which is greatly appreciated, applies to all the hospitals except Bangour, which has its own service. New X-ray plant is about to be installed, and equipment for the biochemical laboratory has been increased. The purchase of much valuable equipment for teaching purposes will be possible from a grant of £6,000 made to the University by the Government.

12. Mental Health Services.—Throughout the year Bangour Hospital, while continuing most of its special wartime activities, has been gradually returning to its normal function of caring for the mentally sick. Including transferred patients, the admissions numbered 441, which included all the fresh cases occurring in Edinburgh. At the end of the year there were 546 patients in the mental wards, representing fully half of the normal pre-war total. More beds are being set free, but it will not be possible to provide the pre-war number of 1,035 until more nurses are available and until alternative accommodation has been found for certain of the emergency units which still occupy villas in the parent hospital.

The Medical Superintendent comments favourably on the proportion of voluntary patients among those who enter the hospital. Of the 219 new patients from Edinburgh, 102 were voluntary. He considers, however, that recourse to certification could be substantially reduced and that there is no reason why the proportion of voluntary patients should be any higher in private than in public hospitals.

In his report Dr. M'Alister contributes an interesting commentary on the Russell Committee's Report on lunacy law reform and criticises two proposals which in his view amount in each case to the grafting on our Scottish system of "an objectionable English expedient." One of the proposals is that, as is provided under the English Act, a judicial authority may in certain circumstances conduct an inquiry into the condition of the alleged lunatic before granting an order for his detention. It is considered that the adoption of this proposal would be a retrograde step. The other proposal relates to voluntary patients and Dr. M'Alister is emphatic that the adoption, with minor modifications, of the English Mental

Treatment Act of 1930 would be equally unacceptable in Scotland, where the demand is for the abolition of every restriction on the voluntary mode of admission. The Act of 1930, states Dr. M'Alister, was a belated attempt to catch up with Scottish practice, and, generally speaking, England has lagged behind Scotland in making provision under the Lunacy Acts for the voluntary treatment of mental disorders.

Other interesting points in the Medical Superintendent's review are the encouraging success attending brain operations on the mentally afflicted and the experimental work which has been done in the field of convulsion therapy. Details are also given of the treatment afforded in the tuberculosis wards and in the brain injuries, plastic, gynæcology and general surgery units. Up to the end of 1946 the number of patients treated under the Emergency Medical Service Scheme was 30,253—a truly impressive total.

An interesting chapter in the history of Gogarburn Hospital came to an end with the closing on 28th May 1946 of the hospital's wartime association with the Emergency Medical Service. In 1940 a section of the hospital was hurriedly transformed to meet possible emergencies that might arise from bombing, but trouble from the air was of the slightest, and it became possible to organise a special unit for the treatment of diseases and injuries of the peripheral nerves and of the blood vessels. The unit also earned a reputation as a research centre, and ran for six years, during which time it received 9,535 patients, of whom 7,980 were service personnel. The Medical Superintendent comments on the benefits that accrued to both sides of the hospital by their wartime comradeship. Medical and surgical facilities were available to the mental patients on a scale not known before, and the mental patients by their training in domestic pursuits contributed substantially to the comfort and material well-being of their wartime guests.

Despite the closing of the E.M.S. section, it was not possible to increase the intake of mental patients owing to the continued shortage of nurses. This was a disappointment in view of the growing list of defectives reported as being in need of institutional care. Meanwhile, nurses taking charge of abnormal numbers in overcrowded wards are giving valuable service to the community and every effort is being made to lighten their burden.

13. **Infectious Diseases Hospitals.**—Record low figures in the admissions from diphtheria and scarlet fever contributed to one of the lightest years in the history of the City Hospital for Infectious Diseases. The total admissions from all causes were 2,991, as compared with 3,890 in 1945. Diphtheria admissions, down to 188, were by far the lowest ever recorded, and while this may have been influenced to some extent by immunisation, it is difficult to account for a similar drop in scarlet fever admissions. No fatal cases of scarlet fever occurred, and the fatality rates in measles and whooping cough were the most favourable ever experienced.

The City Hospital received 285 patients suffering from pulmonary tuberculosis, and the Royal Victoria Hospital 110. At both institutions the accommodation was fully taxed, and it was only by the exceptional patience and endurance of a depleted nursing staff that all the tuberculosis wards remained open.

14. **Bacteriological Services.**—Professor T. J. Mackie has resumed the pre-war custom of supplementing his statistical report by giving reviews of special investigations carried out in the Bacteriology Department of the University during the year. These provide a fascinating study and are well worth perusal by the increasing

number of citizens who take more than a passing interest in public health. Those who read how droplet infection is conveyed by sneezing, coughing and speaking, will appreciate why we encourage handkerchief drill in schools and advise grown-ups to isolate themselves when afflicted by the common cold. "One sneeze means a million droplets" might be a useful slogan for the coming winter. A second investigation concerns the types of diphtheria experienced in Edinburgh and emphasises the need for the effective immunisation of every child. In a third investigation the spread of infections among infants and nurses is discussed and this is of special interest in view of recent discoveries in maternity units. Apart from the special investigations, the routine bacteriological services embracing over 40,000 examinations have been of great value to the hospitals and the citizens owe a debt of gratitude to our good friends in the laboratories.

15. National Health Service.—Preparations are now well advanced for the introduction of the National Health Service on 5th July 1948. Two years of discussion and negotiation among the interests involved have gone far to produce a scheme which appears workable and which in time should prove of benefit to the people of Scotland. A point in favour of the new service is that it takes cognisance of purely Scottish needs and that it is likely to be directed by Scotsmen with an intimate knowledge of Scottish problems. Edinburgh's seven hospitals will be among the institutions to pass over to national control represented by the Regional Hospital Board. There need be no alarm on that account since local authorities will be represented on the Board.

A welcome development is that the obligation to undergo a means test to determine contributions by patients in the municipal hospitals will disappear. Medical directors will also have greater freedom in placing patients in hospitals where the most suitable treatment is available. Our ageing population will inevitably require greater institutional provision as the years advance and the grouping of hospitals on a regional basis will, it is believed, help to solve the problem of caring for the chronic sick.

With hospital administration passing to Government control the question naturally arises—what is left for the local authority and the Public Health Department? Briefly the answer is that it will be their duty to equip and staff health centres, provide maternity, child welfare and midwifery services and to arrange health visiting, home nursing and the after-care of the sick—not an unimportant role. The Public Health Department will require to stress the importance of the prevention of ill-health since there is little or no reference to it in the National Health Service. In this connection, our health visitors will continue to do valuable work, and the general scheme of health education developed during the past year should be capable of expansion.

16. Health Education.—Interest in health education among the citizens was stimulated to a considerable extent by the success of Health Week held in May 1946 and an effort has been made to keep the interest at the same high level. The subject was fully discussed at a round-table conference of doctors, health visitors and others who took an active part in Health Week and it was agreed that among the more promising forms of health education were talks in schools, a repetition of the school "quiz," baking competitions for girls, film shows and discussions for adults, newspaper articles and a mobile health exhibition to visit schools and child welfare centres.

Experiments based on certain of these proposals had encouraging results. Sunday evening film shows, for example, attracted audiences of 2,000 even when the weather was none too congenial. The meetings doubtless took many people "off the street," but there were others who apparently had forsaken the comfort of the fireside to enjoy the films and hear a talk on a health subject, followed by half-an-hour of questions answered by a medical team. The health films shown are British, and there is no doubt that for quality of production and skill in presenting the subject they are excellent. Our chief concern is whether the supply will keep pace with the demand.

The place of health education in schools is under discussion by education officers and medical officers of health, who, at a conference convened by the Scottish Council for Health Education and held in Edinburgh last December, appointed a committee to draw up a scheme to give the subject a secure place in the curriculum. Meanwhile our intention in Edinburgh is to keep the health conscience active. The response by the citizens so far has been most encouraging.

17. Cancer.—An interim scheme under the Cancer Act of 1939 received the approval of the Department of Health for Scotland on 1st April 1946. Under this scheme the City has concluded an agreement with the Royal Infirmary of Edinburgh which includes the provision of facilities for diagnosis by persons qualified to undertake such duties, expert treatment of persons suffering from cancer as in-patients or out-patients by surgery, x-rays, radium or otherwise, and follow-up treatment or examination.

During 1946, 2,090 new cases of malignant disease were seen in the Royal Infirmary, and of that number 848 came from Edinburgh. This figure of 848 represents a fairly high proportion of the cases that one would expect from the population of Edinburgh. The usually accepted figure is 200 new cases per 100,000 of the population and the figure of 848 represents a rate of 185 per 100,000 of the population. A more detailed analysis of these cases has not yet been carried out. The Public Health Department have co-operated with the Radiological Department of the Royal Infirmary by providing statistical details that have proved helpful.

Acknowledgments.—It is a pleasure to record my gratitude to members of the Public Health and other Committees for their interest in and sympathetic support of the various schemes submitted to them. I would also like to thank heads of departments, hospitals and institutions, and all the staffs, for their loyal service throughout the year.

The courtesy of Scotsman Publications Limited in granting permission to reproduce photographs which appeared in the *Evening Dispatch* is also gratefully acknowledged.

I have the honour to be,

My Lord Provost, Ladies and Gentlemen,

Your obedient servant,

WILLIAM GEORGE CLARK,
M.B., Ch.B., F.R.C.P. (Edin.), D.P.H. (Camb.),
Medical Officer of Health.

CITY OF EDINBURGH

SUMMARY OF STATISTICS

For the Years 1942, 1943, 1944, 1945 and 1946

	1942	1943	1944	1945	1946
Population (Civilian) at Mid-Year	424,547	415,318	418,374	426,280	459,430
Area of City—Acres	32,526	32,526	32,526	32,526	32,526
Density of Population—					
Persons per acre	13.1	12.8	12.9	13.1	14.1
Inhabited Houses	130,621	131,100	131,493	131,859	132,294
Marriages Registered	4,887	3,987	3,977	5,523	4,878
Birth-Rate	15.8	16.2	16.6	15.4	19.5
Death-Rate	14.5	15.3	14.3	14.4	14.1
Infant Mortality Rate (per 1,000 Live Births)	56	54	51	50	52
Neo-Natal Mortality Rate (per 1,000 Live Births)	29	27	28	25	26
Still-Birth Rate (per 1,000 Total Births)	33	37	27	28	32
Maternal Mortality Rate (per 1,000 Total Births)	2.4	1.9	2.0	2.4	1.6
Cancer Death Rate	2.3	2.3	2.2	2.4	2.1
Pulmonary Tuberculosis Death-rate	0.7	0.8	0.6	0.5	0.6
*Epidemic Diseases Death-rate	0.2	0.2	0.2	0.2	0.3

*Includes Typhoid Fever, Measles, Scarlet Fever, Whooping Cough, Diphtheria, and Diarrhoea and Enteritis under 2 years.

BIRTHS, DEATHS and MARRIAGES in EDINBURGH.

1925-1946.

Year	Estimated Population	Numbers						Rates					
		Live Births		Still Births	Marriages	Deaths		Per 1000 of Estimated Population			Illeg. Births per cent. of Live Births	Deaths under 1 year per 1000 Live Births	Still Births per 1000 Total Births
		Total	Illegitimate			All Ages	Under 1 Year	Live Births	Marriages	Deaths			
1925	427,664	7,843	499	...	4,065	6,138	751	18·3	9·5	14·4	6·4	96	...
1926	429,535	7,926	549	...	3,823	5,710	632	18·5	9·0	13·3	6·9	80	...
1927	431,413	7,621	542		3,861	6,066	606	17·7	8·9	14·1	7·1	80	
1928	433,299	7,420	476		3,760	5,872	553	17·1	8·7	13·6	6·4	75	
1929	435,195	7,304	531		3,955	6,442	581	16·8	9·1	14·8	7·3	80	
1925-29	**431,421**	**7,623**	**519**		**3,893**	**6,046**	**625**	**17·7**	**9·0**	**14·0**	**6·8**	**82**	
1930	437,098	7,307	441		3,693	6,038	596	16·7	8·4	13·8	6·0	82	
1931	443,042	7,164	499		3,788	5,726	492	16·2	8·6	12·9	7·0	69	
1932	447,800	6,960	466		3,932	6,032	507	15·5	8·8	13·5	6·7	73	
1933	452,773	6,835	443		4,037	5,964	453	15·1	8·9	13·2	6·5	66	
1934	457,099	7,188	457		4,245	5,873	449	15·7	9·3	12·8	6·4	62	
1930-34	**447,562**	**7,091**	**461**		**3,939**	**5,927**	**499**	**15·8**	**8·8**	**13·2**	**6·5**	**70**	
1935	460,877	7,037	486		4,291	6,132	490	15·3	9·3	13·3	6·9	70	
1936	464,139	7,391	464		4,478	6,226	505	15·9	9·6	13·4	6·3	68	
1937	466,817	7,375	462	...	4,451	6,544	516	15·8	9·5	14·0	6·3	70	...
1938	469,448	7,549	467	...	4,512	5,974	462	16·1	9·6	12·7	6·2	61	...
1939	471,897	7,300	417	306	5,498	6,169	432	15·5	11·7	13·1	5·7	59	40
1935-39	**466,636**	**7,330**	**459**	...	**4,646**	**6,209**	**481**	**15·7**	**9·9**	**13·3**	**6·3**	**66**	...
*1940	427,439	6,930	411	288	5,909	6,802	468	15·5	13·2	15·9	5·9	68	40
1941	429,179	6,934	504	267	4,882	6,545	461	15·0	10·6	15·3	7·3	66	37
1942	424,547	7,386	559	255	4,887	6,152	415	15·8	10·5	14·5	7·6	56	33
1943	415,318	7,605	637	290	3,987	6,338	407	16·2	8·5	15·3	8·4	54	37
1944	418,374	7,908	720	223	3,977	5,979	403	16·6	8·3	14·3	9·1	51	27
1940-44	**422,971**	**7,353**	**566**	**265**	**4,728**	**6,363**	**431**	**15·8**	**10·2**	**15·0**	**7·7**	**59**	**35**
1945	426,280	7,362	723	214	5,523	6,147	365	15·4	11·6	14·4	9·8	50	28
1946	459,430	9,350	658	305	4,878	6,485	490	19·5	10·2	14·1	7·0	52	32

Still Births became Registrable in 1939

* Death Rates from 1940 onwards are based on Civilian Population and Civilian Deaths, but the Population used in estimating Birth Rates and Marriage Rates includes an allowance for Persons in the Armed Forces.

VITAL STATISTICS.

Population.—The Registrar General's estimate of the civilian population of the City of Edinburgh at mid-year 1946 is 459,430, and it is on this figure that the death rates are based. The population used in estimating birth rates includes an allowance for persons in the armed forces. The estimated total population is 478,800

In the table below, the age distribution of the population in Edinburgh is shown. The figures for 1901, 1921 and 1931 are based on census returns, and those for 1946 are estimates based on the National Register.

AGE DISTRIBUTION OF POPULATION

Age Groups	1901	1921	1931	1946
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Under 1 Year - - -	2.1	1.9	1.5	1.5
1– 5 Years - - -	7.8	5.8	5.9	6.0
5–15 ,, - - -	20.8	17.7	15.2	13.6
15–25 ,, - - -	21.4	18.8	18.4	14.0
25–45 ,, - - -	28.6	29.3	29.1	30 2
45–65 ,, - - -	14.9	20.3	22.2	24.0
65 and over - - -	4.4	6.2	7.7	10.6
	100	100	100	100

Inhabited Houses.—Ward populations are based on the number of inhabited houses of which there were 132,294 on the City Assessor's Roll at Whitsunday 1946. The numbers in each ward of the City are shown on page 21.

Births.—Live births registered during the year numbered 9,350, and were equivalent to a birth rate of 19.5 per 1,000 of the estimated population. Males numbered 4,844 and females 4,506. The rate is 4.1 higher than that for the previous year and 3.8 above the pre-war average. It is the highest birth rate recorded for the City since 1924. Illegitimate live births were 658 or 7.0 per cent. of the total live births, compared with a percentage of 9.8 for the previous year. There were 305 still births, equivalent to a rate of 32 per 1,000 total births (live and still).

Marriages.—The total number of marriages registered was 4,878—645 fewer than in 1945. They averaged 4,646 pre-war.

Deaths.—There were 6,485 deaths (3,147 males and 3,338 females) representing a death rate of 14.1 per 1,000. The rate for 1945 was 14.4 per 1,000, and the average for the previous five years 15.0. The principal causes of death are set out in the following table :—

PRINCIPAL CAUSES OF DEATH AND RATES PER 100,000 OF POPULATION

CAUSE OF DEATH	Average 1940–44		1945		1946	
	No.	Rate	No.	Rate	No.	Rate
Heart Disease	1,549	366	1,744	409	1,848	402
Other Diseases of Circulatory System	214	50	185	43	213	46
Malignant Diseases	936	221	1,013	237	955	208
Diseases of Nervous System	841	198	925	217	970	211
Pneumonia (all forms)	310	73	227	53	283	62
Bronchitis	296	70	235	55	250	54
Tuberculosis Respiratory	295	70	218	51	292	64
,, (other forms)	68	16	76	17	59	13

Tables on pages 18-19 show the deaths from all causes classified in age and sex groups, and rates per 1,000 of the population.

Diseases of the circulatory system caused 2,061 deaths or 32 per cent. of the total registered. The great majority (76 per cent.) were of persons over 65 years of age.

Cancer deaths, despite the ageing of the population, have remained more or less stationary, the number from this cause being 955 as compared with 1,013 in 1945 and an average of 936 in the preceding five years. A table on page 20 shows the classification of the deaths from malignant diseases.

Deaths from all forms of tuberculosis totalled 351—an increase of 57 over the number for the previous year. The death rate was 76 per 100,000, compared with 69 in the previous year. The Tuberculosis Officer deals more fully with this subject in his Report on page 41.

In the principal epidemic diseases group, which includes typhoid fever, measles, scarlet fever, whooping cough, diphtheria, and diarrhoea and enteritis under 2 years, there were 125 deaths. The table shows the deaths from these causes during the last five years :—

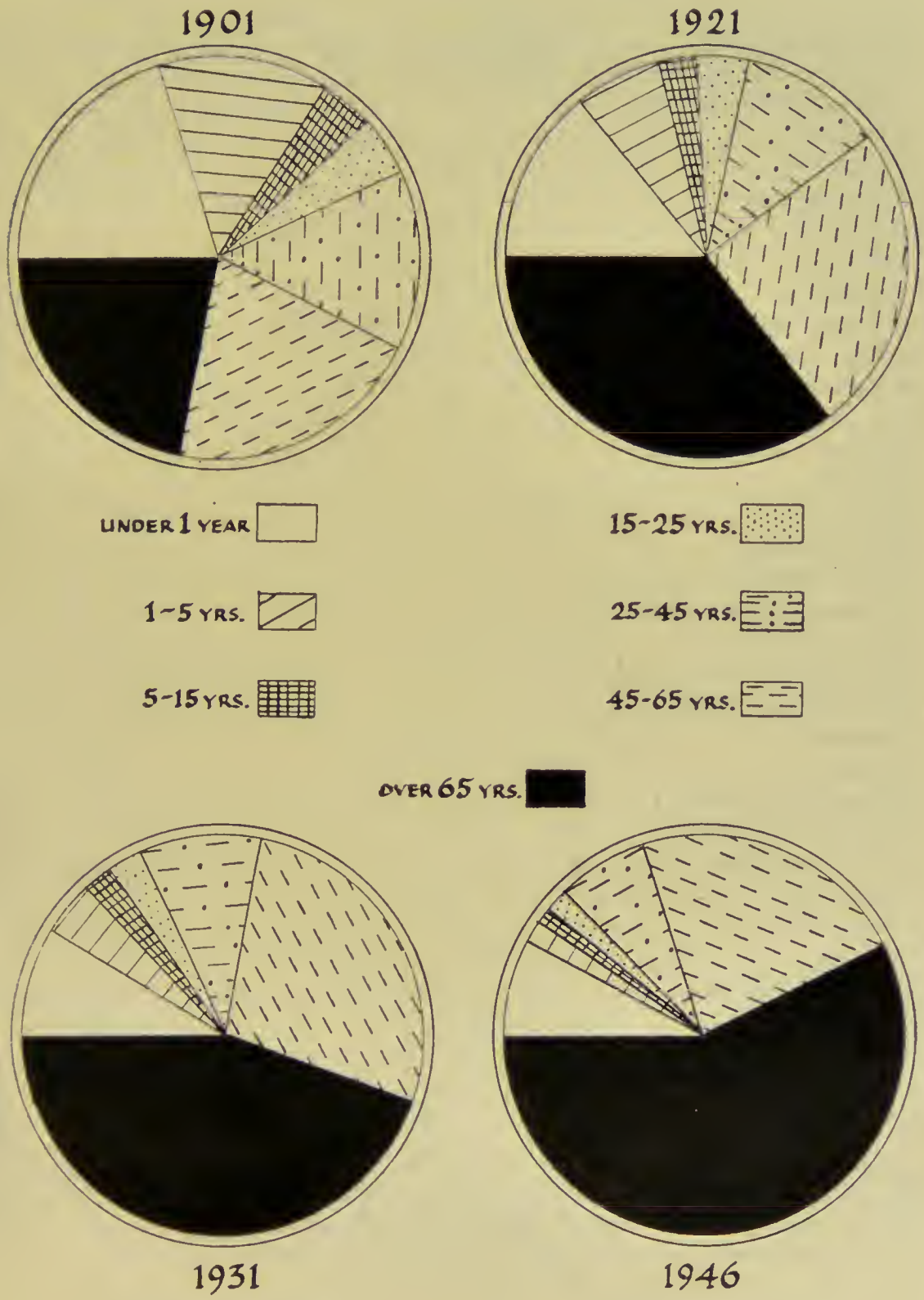
	1942	1943	1944	1945	1946
Typhoid Fever	2	....	....	1	....
Measles	10	7	....	16	4
Scarlet Fever	5	4	3	1	....
Whooping Cough	2	19	10	17	7
Diphtheria	31	15	12	13	10
Diarrhoea and Enteritis	43	34	47	55	104
	93	79	72	103	125

The deaths from diarrhoea and enteritis under 2 years numbered 104, and were equivalent to a rate of 11.1 per 1,000 live births, compared with 7.5 per 1,000 in the previous year. For the five years immediately preceding the war the rate was 5.7. (See report of the Child Welfare Medical Officer on this subject.)

PEOPLE ARE LIVING LONGER.

Comparison of Deaths of Edinburgh Citizens in Age Groups.

For the Years 1901, 1921, 1931 and 1946.



The circles represent total deaths.

CITY OF

Deaths from Specified Causes
and Death Rates per 1,000

Cause of Death	MALES											Total Males
	—1	1—	5—	10—	15—	25—	35—	45—	55—	65—	75+	
1. Typhoid and Paratyphoid Fevers	....	....	....	....	....	....	....	.	..	..	...	..
2. Cerebro-spinal Fever	1	2	....	1	2	....	....	.	..	.	....	6
3. Scarlet Fever	....	....	....	....	....	....	....	....	..	..	..	..
4. Whooping Cough	2	....	....	....	....	....	....	....	..	..	..	2
5. Diphtheria	1	5	....	....	....	....	....	....	..	..	..	6
6. Measles	1	....	....	....	....	....	....	..	..	..	..	1
7. Erysipelas	....	....	....	....	....	....	....	..	..	1	1	2
8. Pulmonary Tuberculosis	2	3	2	....	23	22	31	43	27	15	3	171
9. Tubercular Meningitis	....	5	3	3	3	1	....	1	1	..	..	17
10. Abdominal Tuberculosis	....	1	....	....	....	....	....	..	....	....	....	1
11. Other Tuberculous Disease	....	....	....	....	3	4	1	3	....	1	.	12
12. Syphilis	1	....	....	....	....	1	1	5	7	6	....	21
13. Influenza	4	2	....	....	2	....	2	4	8	7	4	33
14. Cancer	....	....	1	....	....	4	20	59	132	156	94	466
15. Acute Rheumatism	....	....	....	....	....	1	....	....	1	....	....	2
16. Diabetes Mellitus	....	....	....	1	2	....	2	1	4	4	2	16
17. Cerebral Haemorrhage, etc.	....	1	....	....	1	2	6	13	40	146	124	333
18. Other Nervous Diseases	10	5	1	3	3	4	3	9	9	8	7	62
19. Heart Disease	1	....	1	....	3	5	30	80	156	266	296	838
20. Other Circulatory Diseases	....	....	....	....	....	1	1	8	10	37	45	102
21. Bronchitis	4	2	....	....	....	....	5	30	38	40	30	149
22. Pneumonia	43	5	2	1	....	3	8	10	16	32	31	151
23. Other Respiratory Diseases	4	....	....	....	....	1	3	12	9	15	12	56
24. Gastric and Duodenal Ulcer	1	....	....	....	1	1	5	10	7	13	2	40
25. Diarrhoea and Enteritis	49	9	....	....	....	....	....	1	....	..	1	60
26. Appendicitis	....	1	1	1	....	1	1	4	2	2	1	14
27. Other Digestive Diseases	3	....	2	....	1	4	2	6	11	19	14	62
28. Nephritis	....	....	....	....	....	2	6	7	10	13	16	54
29. Other Diseases of Genito-Urinary System.	2	....	....	....	..	1	2	2	8	27	42	84
30. Puerperal Sepsis	....	....	....	....	....	..	..	....	....	..	.	—
31. Other Maternal Causes	....	....	....	....	....	.	..	....	....	....	....	—
32. Congenital Debility, Premature Birth Malformations, etc.	119	2	....	....	....	....	....	1	1	....	..	123
33. Old Age	....	....	....	....	....	....	....	.	....	1	25	26
34. Suicide, Road Transport Accidents and other Violent Causes.	17	6	9	6	10	12	20	13	13	22	19	147
35. All other Causes	4	....	2	3	3	1	9	10	13	27	18	90
Totals	269	49	24	19	57	71	158	332	523	858	787	3,147

EDINBURGH

in Sex and Age Groups of the Population

Cause of Death	FEMALES											Total Females	Total both Sexes	Rate per 1000 Pop.
	−1	1−	5−	10−	15−	25−	35−	45−	55−	65−	75 +			
1. Typhoid & Paratyphoid Fevers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Cerebro-spinal Fever	2	1	..	1	..	..	..	..	..	..	..	4	10	0.02
3. Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	0.00
4. Whooping Cough	3	2	..	..	..	..	..	..	..	..	..	5	7	0.02
5. Diphtheria	1	2	..	..	..	1	..	..	..	..	..	4	10	0.02
6. Measles	2	1	..	..	..	..	..	..	..	..	..	3	4	0.01
7. Erysipelas	..	..	..	..	..	..	1	..	..	1	2	4	6	0.01
8. Pulmonary Tuberculosis	1	1	..	2	49	32	14	6	5	6	5	121	292	0.64
9. Tubercular Meningitis	..	7	3	4	..	..	..	..	..	..	..	14	31	0.07
10. Abdominal Tuberculosis	..	..	..	..	1	..	1	..	..	1	..	3	4	0.01
11. Other Tuberculous Disease	..	1	1	..	..	2	2	2	1	2	1	12	24	0.05
12. Syphilis	2	..	..	..	..	..	1	..	4	1	..	8	29	0.06
13. Influenza	6	..	..	..	2	2	2	2	4	10	14	42	75	0.16
14. Cancer	1	..	2	..	2	11	33	62	119	159	100	489	955	2.08
15. Acute Rheumatism	..	..	1	2	..	2	..	..	1	1	..	7	9	0.02
16. Diabetes Mellitus	..	..	..	..	..	..	..	2	8	10	8	28	44	0.10
17. Cerebral Haemorrhage, etc.	..	..	..	..	2	..	6	30	72	169	250	529	862	1.88
18. Other Nervous Diseases	6	1	1	1	5	3	4	3	6	7	9	46	108	0.24
19. Heart Disease	..	1	..	1	3	12	24	39	98	314	518	1,010	1,848	4.02
20. Other Circulatory Diseases	..	..	..	..	..	..	..	5	12	30	64	111	213	0.46
21. Bronchitis	7	..	..	1	..	1	1	1	11	29	50	101	250	0.54
22. Pneumonia	32	3	..	1	3	2	4	9	16	24	38	132	283	0.62
23. Other Respiratory Diseases	..	1	..	..	2	1	2	4	6	10	21	47	103	0.22
24. Gastric and Duodenal Ulcer	..	..	..	..	..	..	2	..	4	1	7	14	54	0.12
25. Diarrhoea and Enteritis	46	..	..	..	1	..	..	4	1	1	2	55	115	0.25
26. Appendicitis	..	..	..	..	..	..	1	1	..	3	2	7	21	0.05
27. Other Digestive Diseases	..	..	..	..	..	1	5	9	17	16	17	65	127	0.28
28. Nephritis	..	2	..	..	2	3	2	9	13	13	16	60	114	0.25
29. Other Diseases of Genito-Urinary System.	1	..	..	..	..	1	..	5	7	2	..	16	100	0.22
30. Puerperal Sepsis	..	..	..	..	..	..	1	..	..	..	..	1	1	0.00
31. Other Maternal Causes	..	..	..	..	..	7	7	..	..	..	..	14	14	0.03
32. Congenital Debility, Premature Birth, Malformations, etc.	99	2	2	..	2	..	..	..	..	..	..	105	228	0.50
33. Old Age	..	..	..	..	..	..	..	..	..	7	53	60	86	0.19
34. Suicide, Road Transport Accidents and other Violent Causes.	9	6	2	1	2	6	6	12	13	19	44	120	267	0.58
35. All other Causes	3	2	2	2	6	3	5	18	17	22	21	101	191	0.42
Totals	221	33	14	16	82	90	124	223	435	858	1,242	3,338	6,485	14.1

Site	Sex and Age-periods																					
	Under 15		15–20		20–25		25–35		35–45		45–55		55–60		60–65		65–75		75 and upwards		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Brain	....	....	....	....	....	....	....	1	2	....	3	....	....	1	....	....	1	1	....	1	6	4	10
Jaw, Face and Ear	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	5	....	2	3	7	6	13
Tongue and Mouth	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	....	7	2	5	1	15	4	19
Larynx, Pharynx & Neck	....	....	....	....	....	....	....	....	1	....	2	1	3	....	7	2	4	4	2	4	19	11	30
Thorax and Lungs	....	....	....	....	....	....	3	1	8	1	28	3	15	4	19	1	16	11	2	2	91	23	114
Breast	....	....	....	....	....	....	....	2	....	8	....	9	....	9	1	9	....	24	....	10	1	71	72
Stomach and Oesophagus	....	....	....	....	....	1	1	2	....	4	14	13	6	9	24	12	44	38	19	17	108	96	204
Liver and Gall Bladder	....	....	....	....	....	....	....	....	1	....	1	1	....	1	2	2	6	6	2	4	12	14	26
Intestines and Rectum	....	....	....	1	....	....	....	5	3	8	4	6	17	10	22	12	43	33	35	41	124	116	240
Pancreas	....	....	....	....	....	....	....	....	....	....	....	1	2	2	3	2	1	6	7	4	13	15	28
Pylorus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uterus	....	....	....	....	....	....	....	....	....	6	....	13	....	9	....	7	....	15	....	5	....	55	55
Ovaries and Vagina	....	1	....	....	....	....	....	....	....	2	....	12	....	2	....	10	....	9	....	3	....	39	39
Penis and Scrotum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	..	1	...	1
Abdomen and Pelvis	....	....	....	....	....	....	....	....	....	1	2	....	....	2	....	2	1	2	2	2	5	9	14
Kidney	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	3	1	...	....	3	4	7
Prostate	....	....	....	....	....	....	....	....	1	....	2	....	....	....	2	....	18	...	16	....	39	...	39
Bladder	....	....	....	....	....	....	....	....	....	1	1	1	2	1	1	1	4	6	2	2	10	12	22
Bones	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	2	1	3
Ductless Glands	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	1	1	2
Otherwise specified	1	2	....	....	....	....	....	....	4	2	2	1	2	....	....	1	....	1	....	1	9	8	17
Totals M.	1		....		....		4		20		59		48		84		156		94		466		955
Totals F.		3		1		1		11		33		62		55		64		159		100		489	

TABLE SHOWING THE POPULATION, ETC., ALSO THE BIRTHS AND DEATHS IN EACH WARD DURING 1946.

No.	Ward	Estimated (Civilian) Population at Mid-Year	Area in Acres	Density of Population per Acre	Births		Infant Mortality		Deaths					
									Pulmonary Tuberculosis		*Epidemic Diseases		All Causes	
					Number	Rate per 1,000	Deaths	Rate per 1,000 Births	Number	Rate per 1,000	Number	Rate per 1,000	Number	Rate per 1,000
1	Calton	18,482	228	81.0	401	20.7	14	35	9	0.5	3	0.2	240	13.0
2	Canongate	16,198	965	16.7	331	19.5	19	57	10	0.6	4	0.2	255	15.8
3	Newington	19,566	891	22.0	322	15.7	13	40	14	0.7	1	0.1	331	17.0
4	Morningside	20,544	1,358	15.1	293	13.6	9	31	6	0.3	1	0.1	384	18.7
5	Merchiston	18,900	677	27.9	322	16.3	16	50	11	0.6	3	0.2	329	17.4
6	Gorgie	28,548	676	42.2	551	18.5	35	64	22	0.9	2	0.1	336	11.8
7	Haymarket	18,867	959	19.7	253	12.8	9	36	5	0.3	2	0.1	236	12.5
8	St. Bernard's	20,113	1,250	16.1	420	19.9	16	38	8	0.4	3	0.1	295	14.7
9	Broughton	16,154	472	34.2	311	18.4	8	26	9	0.6	5	0.3	228	14.1
10	St. Stephen's	14,694	190	77.3	332	21.6	11	23	8	0.6	6	0.4	210	14.3
11	St. Andrew's	8,857	206	43.0	203	21.9	18	89	5	0.6	3	0.3	132	14.9
12	St. Giles	15,511	266	58.3	352	21.7	23	65	15	1.0	4	0.3	246	15.9
13	Dalry	17,980	187	96.1	369	19.6	18	49	15	0.8	5	0.3	250	13.9
14	George Square	16,150	248	65.1	315	18.6	15	48	19	1.2	7	0.4	314	19.4
15	St. Leonard's	15,198	104	146.1	380	23.9	24	63	8	0.5	11	0.7	220	14.5
16	Portobello	36,875	2,200	16.8	706	18.3	40	57	19	0.5	9	0.2	468	12.7
17	South Leith	26,611	819	32.5	510	18.3	31	61	23	0.9	9	0.3	366	13.8
18	North Leith	14,576	218	66.9	326	21.3	17	52	15	1.0	6	0.4	189	13.0
19	West Leith	17,201	462	37.2	376	20.9	23	61	8	0.5	8	0.5	221	12.8
20	Central Leith	12,145	142	85.5	256	20.1	14	55	10	0.8	3	0.2	158	13.0
21	Liberton	20,080	6,339	3.2	575	27.3	41	71	22	1.1	15	0.7	273	13.6
22	Colinton	14,210	5,602	2.5	263	17.7	15	57	5	0.4	3	0.2	216	15.2
23	Corstorphine and Cramond	41,811	8,067	5.2	960	21.9	45	47	18	0.4	9	0.2	481	11.5
	Institutions	10,159	..	..	223	..	16	..	8	..	3	..	107	..
	Totals	459,430	32,526	14.1	9,350	19.5	490	52	292	0.6	125	0.3	6,485	14.1

* Includes Typhoid Fever, Measles, Scarlet Fever, Whooping Cough, Diphtheria, and Diarrhoea and Enteritis under 2 years.

Note.—Births and deaths occurring in institutions are allocated to wards, except in cases where a permanent domicile cannot be established. Death rates are based on civilian population and civilian deaths, but the population used in estimating birth rates includes an allowance for persons in the Armed Forces.

CITY OF EDINBURGH.

Inhabited Houses.

Ward	Number of Inhabited Houses						
	1940–41	1941–42	1942–43	1943–44	1944–45	1945–46	1946–47
1. Calton - -	5,384	5,376	5,399	5,406	5,394	5,429	5,436
2. Canongate -	4,823	4,803	4,791	4,779	4,766	4,765	4,764
3. Newington -	5,788	5,799	5,853	5,890	5,904	5,923	5,929
4. Morningside -	7,123	7,205	7,255	7,262	7,310	7,344	7,337
5. Merchiston -	6,073	6,132	6,169	6,235	6,308	6,348	6,300
6. Gorgie - -	7,923	7,953	7,928	7,919	7,924	7,927	7,930
7. Haymarket -	5,334	5,315	5,412	5,433	5,498	5,504	5,549
8. St. Bernard's -	6,306	6,304	6,365	6,415	6,429	6,435	6,488
9. Broughton -	4,891	4,883	4,914	4,914	4,932	4,904	4,895
10. St. Stephen's -	4,442	4,466	4,499	4,528	4,556	4,558	4,592
11. St. Andrew's -	2,606	2,624	2,652	2,660	2,665	2,702	2,684
12. St. Giles - -	4,110	4,065	4,048	4,054	4,088	4,104	4,082
13. Dalry - -	5,181	5,135	5,138	5,138	5,153	5,143	5,137
14. George Square	4,394	4,427	4,417	4,433	4,447	4,470	4,486
15. St. Leonard's -	4,445	4,452	4,463	4,461	4,483	4,487	4,470
16. Portobello -	10,200	10,240	10,257	10,255	10,278	10,276	10,243
17. South Leith -	7,386	7,303	7,387	7,394	7,408	7,398	7,392
18. North Leith -	3,651	3,538	3,586	3,612	3,655	3,629	3,644
19. West Leith -	5,024	4,955	5,011	5,037	5,020	5,028	5,059
20. Central Leith -	3,183	3,170	3,189	3,189	3,182	3,183	3,196
21. Liberton -	5,391	5,393	5,394	5,419	5,407	5,442	5,427
22. Colinton - -	4,425	4,541	4,539	4,618	4,605	4,609	4,584
23. Corstorphine & Cramond -	11,296	11,870	11,955	12,049	12,081	12,251	12,670
	129,379	129,949	130,621	131,100	131,493	131,859	132,294

Year	*Increase*
1940–41 - - - - -	1,212
1941–42 - - - - -	570
1942–43 - - - - -	672
1943–44 - - - - -	479
1944–45 - - - - -	393
1945–46 - - - - -	366
1946–47 - - - - -	435

INFECTIOUS DISEASES.

The City was remarkably free from infectious diseases during the year, the cases numbering 4,998, compared with 6,991 in 1945, and an average of 6,423 for the previous five years.

Enteric Group.—Only five confirmed cases of enteric fever were reported. Two were B. Typhosus infections and three B. Paratyphosus B. Both typhoid cases and two of the Para. B. cases were infected outwith the City. The source of infection of the only Edinburgh case was never traced. No deaths occurred.

Diphtheria.—The cases of diphtheria numbered 172 as compared with 362 in 1945, and an average of 403 for the previous five years. Deaths numbered 10, representing a case mortality of 5.8 per cent. The incidence rate was 37.4 per 100,000 and the death rate 2.2 per 100,000—the lowest ever recorded.

Scarlet Fever.—Cases of scarlet fever numbered 434—less than half the total of 1,029 for 1945. The prevalent type was extremely mild and there were no deaths from the disease. The number of cases is well below the average of 1,388, and is the lowest ever known in the City.

Cerebro-spinal Fever.—Seventy-three cases of cerebro-spinal fever were reported—18 more than for the previous year. There were 10 deaths, representing a case mortality of 13.7 per cent. The incidence rate which pre-war averaged 4.3 per 100,000 reached the high figure of 76.3 in 1940, when 326 cases and 45 deaths were recorded. There was a decline each year thereafter to 8.8 in 1944. It rose to 12.9 in 1945, and for the year under review the figure was 15.9 per 100,000.

Erysipelas.—There were 203 cases of erysipelas intimated, and of these 6 died—a case mortality of 3.0 per cent. The corresponding figures for 1945 were 207 cases and 5 deaths, the equivalent case mortality being 2.4 per cent.

Puerperal Fever and Pyrexia.—The notifications of puerperal fever numbered 103 and puerperal pyrexia 50, as compared with 98 and 40 respectively in the previous year. The Child Welfare Medical Officer in his report on another page gives a detailed account of these cases. All maternal deaths are investigated and reported upon to the Department of Health.

Measles and Whooping Cough.—During the year 2,064 " first " cases of measles were notified. There was a mild outbreak in the early spring and summer months. The cases which totalled 18 in April increased to 238 in May and reached a peak (498) the following month. The mortality was remarkably low, only 4 deaths (3 under one year) occurring during the year.

Whooping cough was present more or less throughout the year, the cases averaging 40 per month. There were 7 deaths, 5 of which were of children in their first year.

INFECTIOUS DISEASES.

The following Table shows the number of notifications for each month of the year 1946:—

Disease	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Diphtheria	23	16	26	11	10	16	15	13	9	8	7	18	172
Erysipelas	19	15	18	20	18	15	15	21	14	17	15	16	203
Scarlet Fever	64	45	44	26	34	19	24	24	30	61	37	26	434
Typhoid Fever	....	....	....	1	....	....	....	....	2	....	....	2	5
Puerperal Fever	4	11	4	6	12	13	19	6	6	11	8	3	103
Puerperal Pyrexia	7	2	3	4	8	13	6	....	....	5	1	1	50
Cerebro-spinal Fever	5	9	12	6	5	5	7	8	6	3	3	4	73
Infective Jaundice	....	....	....	....	4	2	....	....	....	1	....	1	8
Tuberculosis, Pulmonary	42	52	67	57	34	50	49	53	43	46	50	49	592
Tuberculosis, other forms	9	12	13	14	13	13	17	9	4	15	8	6	133
Ophthalmia Neonatorum	2	....	2	4	....	7	15	3	....	1	....	2	36
Malaria	4	1	3	2	2	2	2	3	3	3	6	5	36
Dysentery	12	31	17	8	18	16	12	16	9	3	4	3	149
Acute Primary Pneumonia	59	33	24	20	27	19	12	14	11	12	22	42	295
Acute Influenzal Pneumonia	60	40	17	3	7	3	....	....	1	2	6	16	155
Measles	6	12	10	18	238	498	449	177	59	78	162	357	2,064
Whooping Cough	49	31	45	43	68	42	40	49	20	21	32	43	483
Poliomyelitis	....	1	1	....	....	....	....	..	2	1	1	1	7
Polio-encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....
Encephalitis Lethargica	....	....	....	....	....	....	....	....	....	....	..	..	..
Totals	365	311	306	243	498	733	682	396	219	288	362	595	4,998

INFECTIOUS DISEASES.

Return of Cases of Infectious Disease notified during the year ended 31st December 1946.

DISEASE		Number of Cases Coming to the Knowledge of the Medical Officer of Health										
		At all Ages	At Age—Years								Cases removed to hospital	Cases not removed to hospital
			Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 65	65 and upwards		
Cerebro-Spinal Fever	M	36	8	10	6	3	2	3	3	1	32	4
	F	37	12	8	7	3	1	2	3	1	33	4
Chickenpox	M											
	F											
Cholera	M											
	F											
Continued Fever	M											
	F											
Diphtheria	M	77	3	26	31	5	6	3	3		77	
	F	95	2	18	36	24	10	4	1		94	1
Dysentery	M	82	9	34	14	2	5	10	4	4	50	32
	F	67	6	21	12	8	5	3	7	5	41	26
Encephalitis Lethargica	M											
	F											
Erysipelas	M	86		1	2	3	3	14	43	20	41	45
	F	117	1	1	2	4	9	17	49	34	56	61
Jaundice, Acute Infective	M	7				1		2	4		1	6
	F	1				1						1
Malaria	M	34				2	20	10	1	1	3	31
	F	2					1		1			2
Measles	M	1,059	72	924	35	22	6				242	817
	F	1,005	69	863	50	19	3		1		213	792
Ophthalmia Neonatorum	M	18	18								12	6
	F	18	18								11	7
Plague	M											
	F											
Pneumonia, Acute Influenzal	M	77	5	13	7	8	5	8	23	8	50	27
	F	78	6	7	4	9	10	11	23	8	44	34
Pneumonia, Acute Primary	M	162	8	36	35	10	13	16	27	17	15	147
	F	133	8	18	13	19	15	10	26	24	11	122
Pneumonia (not otherwise notifiable)	M											
	F											
Poliomyelitis, Acute	M	3	2		1						3	
	F	4		1	2		1				2	2
Puerperal Fever	M											
	F	103				29	53	21			88	15
Puerperal Pyrexia	M											
	F	50				15	27	8			26	24
Scarlet Fever	M	198	3	51	111	25	2	5	1		159	39
	F	236		59	148	19	7	1	2		178	58
Smallpox	M											
	F											
Tuberculosis—Pulmonary	M	341	1	8	12	71	84	57	90	18	187	154
	F	251		3	11	110	65	36	16	10	106	145
Tuberculosis—Non-Pulmonary	M	66	4	13	19	12	6	2	6	4	8	58
	F	67	3	10	11	18	12	4	7	2	3	64
Typhoid Fever	M	2			1	1					2	
	F											
Para-Typhoid A	M											
	F											
Para-Typhoid B	M	2			2						2	
	F	1				1					1	
Typhus Fever	M											
	F											
Whooping Cough	M	227	53	171	3						87	140
	F	256	45	199	12						97	159
	M	2,477	186	1,287	279	165	152	130	205	73	971	1,506
	F	2,521	170	1,208	308	279	219	117	136	84	1,004	1,517
TOTAL		4,998	356	2,495	587	444	371	247	341	157	1,975	3,023

CITY OF EDINBURGH.

DIPHTHERIA IMMUNISATION SINCE 1923.

Year.	Number Protected.	Total Cases Notified.	Immunised Children Notified.	Fatal Cases Amongst the non-Immunised	Fatal Cases Amongst the Immunised
1923	157	770	...	69	...
1924	3,329	720	28	73	...
1925	256	870	16	82	...
1926	1,969	552	18	43	...
1927	1,603	599	27	44	...
1928	743	629	11	30	...
1929	1,194	1,171	66	53	2
1930	1,175	1,102	24	71	...
1931	560	901	20	28	...
1932	776	662	3	27	...
1933	1,940	606	12	21	...
1934	3,362	546	13	26	1
1935	3,856	308	2	16	...
1936	2,717	374	6	26	...
1937	3,440	622	11	43	...
1938	4,038	600	31	43	1
1939	2,075	361	23	29	...
1940	1,429	749	6	61	...
1941	52,386	446	29	28	...
1942	11,065	480	74	29	2
1943	4,927	422	105	14	1
1944	5,872	306	80	12	...
1945	11,550	362	149	11	2
1946	6,773	172	62	10	...
	127,192	14,330	816	889	9

TREATMENT OF DIABETES.

Under the Public Health (Scotland) Amendment Act 1925, local authorities are empowered to provide medicines and treatment to persons who are suffering from diabetes and who, in the opinion of the local authority, require assistance in obtaining such medicines and treatment. In terms of this Act, the Public Health Department during 1946 supplied insulin to 116 persons. Of that number, 98 received it free of charge.

DIPHTHERIA IMMUNISATION ANALYSIS for YEAR 1946.

	AGE DISTRIBUTION.																
	Under 1 year	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13,	14.	15.	Over 15 yrs.	Total.
1. General Practitioners:—																		
Half-Year to 30th June ...	219	417	73	42	32	46	25	29	28	27	20	7	6	4	2	...	1	1,008
,, 31st Dec. ...	187	490	82	62	42	62	26	39	28	33	19	12	6	5	1	2	...	1,096
	436	907	155	104	74	108	51	68	56	60	39	19	12	9	3	2	1	2,104
2. Child Welfare Centres:—																		
Half-Year to 30th June ...	255	210	124	61	47	34	3	1	1	...	...	...	...	...	...	...	...	736
,, 31st Dec. ...	230	894	140	76	53	12	5	...	1	...	...	...	...	...	...	...	...	1,411
	485	1104	264	137	100	46	8	1	2	...	...	...	...	...	...	...	...	2,147
3. Schools:—																		
Half-Year to 30th June ...	...	...	12	13	25	383	13	41	53	394	54	43	20	42	1	...	...	1,124
,, 31st Dec. ...	1	6	29	35	64	786	47	36	77	198	28	15	6	48	20	1	1	1,398
	1	6	41	48	89	1169	90	77	130	592	82	58	26	90	21	1	1	2,522
4. Schools. (Boosts.):—																		
Half-Year to 30th June ...	...	...	1	1	40	823	80	98	115	1107	156	39	18	79	14	...	...	2,571
,, 31st Dec. ...	3	2	...	...	66	1569	79	57	64	1086	72	21	12	40	18	...	6	3,095
	3	2	1	1	106	2392	159	155	179	2193	228	60	30	119	32	...	6	5,666
Final Total:—																		
General Practitioners ...	436	907	155	104	74	108	51	68	56	60	39	19	12	9	3	2	1	2,104
Child Welfare Centres ...	485	1104	264	137	100	46	8	1	2	...	...	...	...	...	...	...	...	2,147
Schools	1	6	41	48	89	1169	90	77	130	592	82	58	26	90	21	1	1	2,522
	922	2017	460	289	263	1323	149	146	188	652	121	77	38	99	24	3	2	6,773
Boosts—Schools	3	2	1	1	106	2392	159	155	179	2193	228	60	30	119	32	...	6	5.666

Table showing the Infectious Disease Notifications and Deaths in each Municipal Ward during the Year 1946.

No.	Ward	Typhoid Fevers		Puerperal Fever		Diphtheria		Scarlet Fever		Erysipelas		Cerebro-Spinal Fever		Measles		Whooping Cough	
		Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths
1	Calton	....	....	5	....	5	....	12	....	9	1	....	..	137	....	20	....
2	Canongate	....	....	4	....	2	....	13	....	3	1	1	....	104	....	29	....
3	Newington	....	....	2	....	4	....	14	....	4	....	2	....	34	..	11	....
4	Morningside	....	....	4	....	5	....	15	....	5	1	2	1	15	....	2	....
5	Merchiston	1	....	5	....	1	....	14	....	9	..	3	....	46	....	16	....
6	Gorgie	....	....	5	..	4	....	30	....	13	..	6	2	144	....	26	....
7	Haymarket	....	....	2	....	2	....	5	....	....	....	1	....	24	....	4	....
8	St. Bernard's	....	....	3	....	7	....	13	....	14	..	5	....	88	....	14	....
9	Broughton	....	....	1	....	8	....	10	....	9	....	2	1	34	....	12	....
10	St. Stephen's	....	..	1	....	7	....	13	....	3	....	....	....	36	1	4	....
11	St. Andrew's	....	..	1	..	5	1	6	....	3	..	....	....	40	....	8	
12	St. Giles	....	....	3	....	5	....	9	....	10	....	3	1	99	....	13	2
13	Dalry	....	....	1	1	6	2	20	....	6	....	1	....	94	....	10	
14	George Square	....	....	5	....	12	2	10	....	7	....	....	....	71	1	8	1
15	St. Leonard's	....	....	5	....	4	....	11	....	14	....	....	..	99	....	24	1
16	Portobello	....	....	7	....	19	1	45	....	19	....	4	1	174	..	59	..
17	South Leith	....	....	3	....	8	....	21	....	13	....	2	1	135	1	38	....
18	North Leith	....	....	5	....	3	....	7	....	6	1	2	1	174	.	18	1
19	West Leith	....	....	....	....	8	....	17	....	10	..	....	..	116	....	16	
20	Central Leith	....	..	3	....	7	1	8	....	6		....		40	.	21	
21	Liberton	....	..	8	....	11	1	35	....	8		3	..	46	1	21	1
22	Colinton	..	..	....	....	2	1	10	....	7		2		22	....	6	
23	Corstorphine and Cramond	..	..	7	....	12	1	49	....	6	2	3	1	143		28	1
	Institutions	4	..	23	....	25	..	47	....	19		31	1	149		75	
	Total	5	....	103	1	172	10	434	....	203	6	73	10	2,064	4	483	7

Cases of Certain Specified Infectious Diseases notified in Edinburgh during the last 25 Years

Year	Typhoid Fevers		Diphtheria		Scarlet Fever		Cerebro-Spinal Fever		*Measles		*Whooping Cough	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1922 - -	16	4	800	57	1,702	32	4	3	Not	113	Not	109
1923 - -	29	2	770	69	1,897	93	12	8	notifiable	79	notifiable	89
1924 - -	27	1	720	73	1,761	68	15	11		120		85
1925 - -	30	1	870	82	2,351	62	12	10	2,252	85	2,043	188
1926 - -	33	7	552	43	1,852	32	25	20	3,346	42	280	17
1927 - -	78	2	599	44	1,848	19	30	25	2,803	71	850	43
1928 - -	19	2	629	30	1,046	6	25	21	4,340	77	1,390	80
1929 - -	76	2	1,171	55	1,154	3	63	48	338	....	863	39
1930 - -	35	2	1,102	71	1,278	8	52	37	7,182	106	1,638	72
1931 - -	14	1	901	28	647	4	48	36	811	4	839	19
1932 - -	26	4	662	27	1,080	8	54	39	8,786	89	1,205	56
1933 - -	50	3	606	21	4,516	21	41	25	178	2	984	65
1934 - -	13	....	546	27	2,419	17	34	22	3,200	67	189	6
1935 - -	32	3	308	16	1,511	7	19	13	854	11	877	37
1936 - -	25	5	374	26	1,083	5	19	13	2,491	41	804	25
1937 - -	16	....	622	43	1,680	10	19	15	1,508	16	1,425	67
1938 - -	35	1	600	44	1,430	5	20	14	2,248	36	253	4
1939 - -	25	2	361	29	734	1	23	2	678	2	1,521	41
1940 - -	32	2	749	61	652	1	326	45	2,818	13	255	8
1941 - -	68	4	446	28	1,070	3	194	36	1,123	7	1,365	44
1942 - -	14	2	480	31	2,023	5	84	14	2,307	10	135	2
1943 - -	7	....	422	15	1,598	4	37	7	1,723	7	775	19
1944 - -	8	....	306	12	1,222	3	37	1	1,124	....	409	10
1945 - -	3	1	362	13	1,029	1	55	4	2,920	16	494	17
1946 - -	5	....	172	10	434	....	73	10	2,064	4	483	7

* From 1925 only first case in household notifiable.
From 1933, only first case (under 5 years) in household notifiable.

Incidence and Death Rates per 100,000 of Population and Case Mortality per Cent.

Year	Typhoid Fevers			Diphtheria			Scarlet Fever			Cerebro-Spinal Fever			Measles			Whooping Cough		
	Incidence Rate	Death Rate	Case Mortality	Incidence Rate	Death Rate	Case Mortality	Incidence Rate	Death Rate	Case Mortality	Incidence Rate	Death Rate	Case Mortality	Incidence Rate	Death Rate	Case Mortality	Incidence Rate	Death Rate	Case Mortality
1922	3·8	0·9	25·0	189·5	13·5	7·1	403·2	7·6	1·8	0·9	0·7	75·0	....	26·8	....	....	25·8	....
1923	6·8	0·5	6·9	181·6	16·3	8·9	447·5	21·9	4·9	2·8	1·9	66·6	....	18·6	....	....	21·0	....
1924	6·3	0·2	3·7	169·1	17·1	10·1	413·5	16.0	3·8	3·5	2·6	73·3	....	28·2	....	....	20·0	....
1925	7·0	0·2	3·3	203·4	19·2	9·4	549·8	14·5	2·6	2·8	2·3	83·3	526·6	19·9	3·8	477·7	44·0	9·2
1926	7·7	1·6	21·2	128·5	10.0	7·8	431·1	7·4	1·7	5·8	4·7	80·0	779·0	9·8	1·3	65·2	4·0	6·1
1927	18·1	0·5	2·6	138·8	10·2	7·3	428·4	4·4	1·0	7·0	5·8	83·3	649·7	16·5	2·5	197·0	10·0	5·1
1928	4·4	0·5	10·5	145·2	6·9	4·8	241·4	1·4	0·6	5·8	4·8	84·0	1,002·0	1·2	1·1	320·8	18·5	5·9
1929	17·5	0·5	2·6	269·1	12·7	4·7	265·2	0·7	0·3	14·5	11·0	76·2	77·7	....	....	198·3	9·0	4·5
1930	8·1	0·5	5·7	252·1	16·2	6·4	292·4	1·8	0·6	11·9	8·5	71·1	1,643·1	24·2	1·5	374·8	16·5	4·4
1931	3·2	0·	7·1	203·4	6·3	3·1	146·0	0·9	0·6	10·8	8·1	75·0	183·1	0·9	0·5	189·4	4·3	2·3
1932	5·8	0·9	15·4	148·0	6·0	4·1	241·2	1·8	0·7	12·1	8·7	72·2	1,962·0	19·9	1·0	269·0	12·5	4·6
1933	11·0	0·7	6·0	133·8	4·6	3·5	997·4	4·6	0·5	9·1	5·5	61·0	39·3	0·4	1·1	217·3	14·4	6·6
1934	2·8	....	....	119·4	5·9	4·9	529·2	3·7	0·7	7·4	4·8	64·7	700·1	14·0	2·1	41·4	1·3	3·2
1935	6·9	0·7	9·4	66·8	3·5	5·2	327·9	1·5	0·5	4·1	2·8	68·4	185·3	2·4	1·3	190·3	8·0	4·2
1936	5·4	1·1	20·0	80·5	5·6	7·0	233·3	1·1	0·5	4·1	2·8	68·4	536·7	8·8	1·7	173·2	5·4	3·1
1937	3·4	....	....	133·5	9·2	6·9	359·9	2·1	0·6	4·1	3·2	79·0	323·0	3·4	1·1	305·2	14·4	4·7
1938	7·5	0·2	2·9	128·0	9·4	7·3	304·6	1·1	0·4	4·3	3·0	70·0	478·9	7·7	1·6	53·9	0·9	1·6
1939	5·3	0·4	8·0	76·5	6·1	8·0	155·5	0·2	0·1	4·9	0·4	8·7	143·7	0·4	0·3	322·3	8·7	2·6
1940	7·5	0·5	6·3	175·2	14·3	8·1	152·5	0·2	0·2	76·3	10·5	13·8	659·2	3·0	0·5	59·7	1·9	3·1
1941	15·8	0·9	5·9	103·9	6·5	6·3	249·3	0·7	0·3	45·2	8·4	18·6	261·7	1·6	0·6	318·1	10·3	3·2
1942	3·3	0·5	14·3	113·1	7·3	6·5	476·6	1·2	0·2	19·8	3·3	16·7	543·5	2·4	0·4	31·8	0·5	1·5
1943	1·7	....	....	101·6	3·6	3·6	384·8	1·0	0·2	8·9	1·7	19·0	414·9	1·7	0·4	186·6	4 6	2 5
1944	1·9	..	....	73·1	2·9	3·9	292·1	0·7	0·2	8·8	0·2	2·7	268·7			97·8	2·4	2·4
1945	0·7	0·2	33·3	84·9	3·1	3·5	241·4	0·2	0·1	12·9	0·9	7·3	685·0	3 8	0·5	115 9	4 0	3·4
1946	1·1	....	....	37·4	2·2	5·8	94·5	....	....	15·9	2·2	13·7	449·3	0·9	0·2	105 1	1·5	1·4

DISINFECTION.

A statement given below shows the number of dwelling houses, etc., disinfected during the last three years :—

	1944		1945		1946	
	Number	Apartments	Number	Apartments	Number	Apartments
Dwelling Houses, etc.—						
After Tuberculous Disease	573	636	641	693	595	682
,, other Diseases -	1,898	1,526	1,794	1,565	1,344	1,108
Bug Disinfestation - -	71	....	98	....	104	....

The number and description of the articles dealt with at the disinfecting station during 1946 are given in the following table :—

Description	Number of Articles	
	After Tuberculous Disease	After Other Diseases
Mattresses and Palliasses - - -	330	4,844
Blankets, Sheets, Quilts, etc. - -	568	5,676
Beds, Pillows, Bolsters, etc. - -	752	7,275
Curtains, Table Covers, Wraps, etc. -	2	169
Table Napery, Towels, etc. - -	3	2,176
Body Clothes - - - - -	6,198	18,751
Carpets and Rugs - - - -	8	365
Miscellaneous - - - - -	150	2,100
Destroyed by request - - -	412	283

Personal Cleansing.—Facilities for personal cleansing are provided at the disinfecting station. Of the 1,430 persons who availed themselves of the opportunity to attend for baths and disinfection of their clothing, one adult and 972 school children suffered from scabies. In addition, 457 adults received treatment for verminous conditions.

INTERMENTS

(In terms of Section 69, Public Health (Scotland) Act, 1897)

Application was made to the Public Health Department in 167 instances by relatives or friends of deceased persons who represented that they were unable to meet the expenses of burial, and by the City Police or superintendents of hospitals and institutions when relatives could not be traced. On investigation eight of the applications were refused and seven were subsequently withdrawn for various reasons.

In the remaining 152 cases arrangements were made for interment or cremation at a cost of £445. As in past years the Earl Haig Fund assisted in the interment of ex-service men by providing private ground in part of a cemetery reserved for such cases.

The applications were distributed as follows:—

	Adults	Children	Total
By Relatives and Friends - -	34	24	58
,, Edinburgh City Police - -	12	2	14
,, Superintendents of Hospitals and other Institutions -	68	12	80
	114	38	152

PUBLIC HEALTH EXPENDITURE

The increase in Public Health Expenditure consequent on the introduction of new schemes from time to time is shown in the following table:—

Year		Gross Expenditure	Revenue	Net Expenditure
1909–10		£35,159	£699	£34,460
1910–11		34,869	718	34,151
1911–12		35,072	780	34,292
1912–13	T.B. Scheme begun.	37,618	2,690	34,928
1913–14		46,094	14,548	31,546
1914–15		56,768	18,716	38,052
1915–16		56,827	12,997	43,830
1916–17	C.W. Scheme begun.	58,323	23,216	35,107
1917–18		75,198	30,552	44,646
1918–19	V.D. Scheme begun.	99,563	43,029	56,534
1919–20		130,877	49,138	81,739
1920–21	Amalgamation with Leith.	210,875	89,098	121,777
1921–22		184,315	68,450	115,865
1922–23		146,395	67,477	78,918
1923–24		149,873	47,554	102,319
1924–25		156,155	48,949	107,206
1925–26		156,919	54,185	102,734
1926–27		157,895	56,439	101,456
1927–28		*172,763	56,999	115,764
1928–29		*177,008	60,512	116,496
1929–30		*182,136	62,559	119,577
1930–31	Includes General Hospitals	*394,088	48,070	346,018
1931–32	and Mental Institutions.	*354,499	48,205	306,294
1932–33		*381,293	82,596	298,697
1933–34		*377,444	76,733	300,711
1934–35		*374,943	75,704	299,239
1935–36		*403,676	82,208	321,468
1936–37		*432,489	69,580	362,909
1937–38		*473,940	81,964	391,976
1938–39	Hospital Beds increased	*456,037	84,633	371,404
1939–40	for war emergencies.	*587,474	198,958	388,516
1940–41		*659,472	242,347	417,125
1941–42		*769,959	323,653	446,306
1942–43		*842,335	371,534	470,801
1943–44		*930,615	455,960	474,655
1944–45		*1,092,064	587,011	505,053
1945–46		*1,067,063	626,634	440,429

*Interest and Debt Charges included.

HOSPITAL EXPENDITURE

The following table shows the cost per occupied bed in the hospitals under the control of the Public Health Department. The particulars apply in each case to the financial year to 28th May, 1946, and are based on the net ordinary expenditure, including loan charges :—

Institution	Daily Average Number of Occupied Beds	Net Ordinary Expenditure Year to 28th May, 1946	Cost per Occupied Bed per Week
City Hospital	375	£75,757	£3 17 8
Western General Hospital	348	95,487	5 5 6
Southern General Hospital	156	50,210	6 3 9
Eastern General Hospital	198	50,646	4 18 4
Royal Victoria Hospital	71	12,467	3 7 6
Bangour Mental Hospital	1,205	266,069	4 4 11
Gogarburn Certified Institution	617	71,564	2 4 7

MOTOR AMBULANCE SERVICES

Seven motor ambulances and three medical aid cars are maintained by the Public Health Department for the removal of patients to all the Corporation hospitals and institutions and for the transfer of patients to districts outwith the City. Increasing use is being made of the ambulance service for conveying patients to centres for X-ray and other specialist treatment.

Six of the ambulances are stationed at the City Hospital and one at High School Yards. The ambulance staff also maintain and drive the Mobile Dental Unit, a motor vehicle which is taken to outlying districts to provide dental services for school children.

The police department have five ambulances for the removal of accident cases to the Royal Infirmary and other hospitals.

The St. Andrew's Ambulance Association have ten ambulances which are sent on request to convey patients to nursing homes and other institutions.

HEALTH EDUCATION

Health Week in Edinburgh during May 1946, organised in collaboration with the Scottish Council for Health Education, stimulated public interest in health matters to a significant degree. The response seemed to emphasise what had been the general experience in former years, namely, that the citizens were not averse to health propaganda, but that, on the contrary, they welcomed information about health when presented to them in fresh and readily understood terms.

The direct contacts during Health Week were estimated as follows:—

Exhibition in Royal Scottish Museum	21,280
Displays in Princes Street Gardens	26,500
Talks to School Children	50,000
Usher Hall Concerts (Youth Rallies)	4,000
Women's Meetings—Overseas Club	500
Churches—Sermonettes in 100	10,000
Factories—Talks to Workers	5,000
Cinema Shows and Brains Trusts (5)	5,750
Cinema Shows—Children (3)	3,000
	126,030

To the foregoing must be added a large number who were reached through articles in the Press. The health message was directed principally to children and mothers, as well as to the man in the office and factory, and emphasis was laid on positive health rather than the alleviation of sickness. A light-hearted approach went far to arouse interest and ensure that the lessons went home.

After Health Week, the Public Health Committee agreed that some of the special activities should be continued throughout the year as part of the day-to-day work for public health. It was particularly desired that the talks to children in schools should be continued. This was the subject of a conference between directors of education and medical officers of health, arranged by the Scottish Council for Health Education, and held in Edinburgh on 6th December 1946. The conference had representatives from every county and large burgh in Scotland. The discussion revealed a widespread desire to give health education a secure place in the school curriculum, and at the close a Continuing Committee was appointed to consider the best means of systemising and extending health education in schools.

During the winter of 1946-47 a series of eight Sunday evening cinema shows was given at fortnightly intervals in two centrally-situated cinemas. These meetings proved popular, attracting an aggregate attendance of 12,850 of which the largest single attendance was 2,000. The films, provided by the Scottish Information Office, were attractively produced, and conveyed their message in a form that could be readily assimilated by a mixed audience. It was our custom to arrange a ten-minute talk by a medical officer and to invite listeners to write questions on cards which were handed up to the stage and answered by a team of medical men. This invariably produced an interesting half-hour, frank questions being answered with corresponding frankness. A total of 70 questions was not uncommon, but there was usually not enough time to answer more than 25 or thereby.

Among the afterthoughts of Health Week was a conviction that the cinema was a valuable means of health education among children. Three Saturday morning talks were given by school medical officers to children attending Junior Cinema Clubs, with about a thousand children present in each case, and the experience proved stimulating. It was found that a six-minute message could hold attention if presented attractively. There is, however, a shortage of health films of interest to children. At the three meetings mentioned, a film on road safety arrested juvenile interest, and it

should be possible to produce others with the simple rules of health as the predominant theme.

Health Week brought an increased demand from women's societies for lectures, talks, and film shows, and, in the course of the winter 27 such meetings were arranged. Films were shown at nearly all of them, and the talks were given by doctors, health visitors, and others from the Public Health Department.

The programmes at the Sunday evening film shows were as follows :—

1946

Oct. 13—New Victoria Cinema, Clerk Street.
Films : "It Began on the Clyde."
"Your Children's Ears."
"It Might Be You."
Address by Dr. A. G. Mearns, Medical Adviser to the Scottish Council for Health Education.
Chairman and Questionmaster : Councillor John G. Banks, Chairman of the Public Health Committee.

Oct. 27—Regal Cinema, Lothian Road.
Films : "Defeat Tuberculosis."
"Children of the City."
"The Nose Has It."
Address by Dr. W. G. Clark, Medical Officer of Health.
Chairman and Questionmaster : Councillor A. H. A. Murray, Treasurer of the City and Chairman of the Scottish Council for Health Education.

Nov. 10—New Victoria Cinema, Clerk Street.
Films : "Defeat Diphtheria."
"A Start in Life."
"Breath of Danger."
Address by Dr. G. J. I. Linklater, Chief Executive School Medical Officer.
Chairman and Questionmaster : Councillor A. H. A. Murray.

Nov. 24—Regal Cinema, Lothian Road.
Films : "Mass Radiography."
"Good Health to Scotland."
"Out and About."
Address by Dr. A. F. Wilkie Millar, General Practitioner, Edinburgh.
Chairman and Questionmaster : Councillor John G. Banks.

1947

Jan. 12—New Victoria Cinema, Clerk Street.
Films : "Your Children's Teeth."
"Your Children and You."
"A B C D of Health."
Address by Dr. H. C. Elder, Tuberculosis Officer for the City.
Chairman and Questionmaster : Councillor John G. Banks.

Jan. 26—Regal Cinema, Lothian Road.
Films : "Your Children's Eyes."
"Life Begins Again."
"Footsteps to Beauty."
Address by Dr. G. J. I. Linklater, Chief Executive School Medical Officer.
Chairman and Questionmaster : Councillor A. H. A. Murray.

Feb. 9—New Victoria Cinema, Clerk Street.
Films : "Hospital School."
"Hospital Team."
"Action."
Address by Mr. Robert I. Stirling, Orthopaedic Surgeon, Edinburgh.
Chairman and Questionmaster : Councillor A. H. A. Murray.

Feb. 23—Regal Cinema, Lothian Road.
Films : "Green Food for Health."
"Institutional Domestic Service."
"Freedom of Aberfeldy".
Address by Dr. Robert McWhirter, Radiologist, Royal Infirmary Edinburgh.
Chairman and Questionmaster : Councillor John G. Banks.

HEALTH EDUCATION—ATTENDANCES AT MEETINGS

(1) Sunday Evening Cinema Shows

		Approx. Attendance
1946		
Oct. 13	—New Victoria	800
,, 27	—Regal	1,100
Nov. 10	—New Victoria	2,000
,, 24	—Regal	1,550
1947		
Jan. 12	—New Victoria	2,000
,, 26	—Regal	1,800
Feb. 9	—New Victoria	1,600
,, 23	—Regal	2,000
		12,850

(2) Saturday Forenoon Talks to Children

1946		
Nov. 30	—New Victoria—Dr. Linklater. Film: "A Ride with Uncle Joe" (Street Safety)	970
Dec. 7	—Capitol, Leith—Dr. J. M. Kerr. Film: "A Ride with Uncle Joe"	1,000
14	—Poole's Roxy—Dr. Linklater Film: "A Ride with Uncle Joe"	1,500
		3,470

(3) Film Shows and Talks to Adults

1946		
Oct. 4	—St. Cuthbert's Women's Guild, Executive Council, Scrivener's Hall	80
,, 8	—St. Cuthbert's Women's Guild, West End Branch, Central Hall, Tollcross	90
,, 22	—South Leith Parish Church Woman's Guild, 77 Duke Street, Leith	150
Nov. 7	—St. Cuthbert's Women's Guild, Central Branch, Scrivener's Hall	60
Nov. 21	—St. Cuthbert's Women's Guild, Northern Branch, St. Vincent's Hall, St. Stephen Street	55
,, 25	—St. Cuthbert's Women's Guild, West Pilton Branch, Community Hut, Ferry Road Drive	80
Dec. 2	—St. Cuthbert's Women's Guild, Labour Hut, Granton Road	23
,, 11	—Abbey Church Woman's Guild, Abbey Church Hall	70
1947		
Jan. 13	—West Pilton Community Association, Pilton School Annexe	26
,, 14	—Wardie Residents' Club, Wardie School	40
,, 16	—St. Cuthbert's Women's Guild, Ashley Branch, Dalry Road School	33
,, 29	—St. Cuthbert's Women's Guild, Southern Branch, 50 South Bridge	55
,, 31	—West Pilton Community Association, Radiant House	40
Feb. 4	—St. Cuthbert's Women's Guild, Ford's Road Branch, St. Martin's Hall	80
,, 10	—West Pilton Parent's Association, School Annexe, Ferry Road	25
,, 11	—St. John's Church Woman's Guild, Church Hall, Castlehill	60
,, 14	—Braid Church Woman's Guild, Braid Church Hall, Morningside	45
,, 17	—City Hospital Nurses, Recreation Hall, City Hospital	80
,, 17	—Trinity Academy and Wardie School Parents' Association, Trinity Academy	138
,, 18	—St. Cuthbert's Women's Guild, New Broughton Branch, 15 Windsor Street	40
,, 18	—Granton Nursery Parents' Meeting, Wardieburn Road	45
,, 22	—Voluntary Health Workers' Association, City Chambers, Edinburgh	30
Mar. 10	—West Pilton Parents' Association, School Annexe, Ferry Road	35
,, 10	—St. Cuthbert's Women's Guild, West Pilton Branch, Community Hut, Ferry Road Drive	35
,, 17	—Broughton Ward Progressive Association, St. Bernard's Hall, Pitt Street	90
,, 18	—Fountainbridge Church Woman's Guild, Church Hall	100
,, 19	—Abbeyhill School Parents' Association, Abbeyhill School	58
		1,663

MOBILE LIBRARY.

Hospital Wards receive supplies of books from the City Librarian.

Evening Dispatch Photo.

Taking chest photographs at the Mass Radiography Unit.

Evening Dispatch Photo.

TUBERCULOSIS DEPARTMENT.

ANNUAL REPORT BY THE TUBERCULOSIS OFFICER.

A consideration of the official statistical returns for the past year shows that the results of the anti-tuberculosis programme have suffered, unfortunately, a definite set-back. Several factors of varying importance are responsible for this regrettable state of affairs.

The conditions engendered by a world war and its inevitable aftermath are peculiarly favourable to an increase in tuberculosis; indeed there is perhaps no chronic disease which is so sensitive an index of the standard of living. The economic upheaval, the set-back to the solution of our long-standing housing difficulties and the world-wide limitation of food supplies are but some of the most potent facts in the causation of the present unfortunate position relative to tuberculosis. The question of food supply is one of fundamental importance. It is stated, more or less authoritatively, that our people are better fed to-day than before the war, and whilst differences of opinion have been widely expressed on this point, there can be no doubt that the prevailing "austerity diet" and the restriction of fats constitute a danger, and further limitations of food rations, and especially of fats, will assuredly not only stimulate a further increase in the incidence of the disease, but will materially diminish the chances of recovery of those already suffering from it.

Apart from the effect of the food supply, which is common to most age groups, there is another factor of great importance which is largely responsible for the increasing number of cases of tuberculosis occurring in adolescents and young adults, namely their insatiable appetite for entertainment and amusement. This constitutes a real menace to their health. After a full day's work in the factory, shop, or office, the leisure evening hours are spent in the dance-hall, the cinema or other crowded place of amusement, and the adequate rest which is so essential to help maintain resistance to the disease is not obtained.

A certain number of cases notified during the year has resulted from the work of the Mass X-Ray Unit. Most of these cases were found in examinees who did not even remotely suspect the existence of the disease, and were actually symptom free. The fact that early pulmonary tuberculosis in most instances is present without giving rise to any symptoms or complaints whatsoever cannot be too strongly emphasised, and it is on this account that every citizen should be encouraged to undergo a Mass X-ray survey at least once a year, and at more frequent intervals if he is exposed to the risk of recurring infection. Mass X-ray investigation has everything to recommend it—it is a safety-first measure; it is painless, speedy, it is free and the results are entirely confidential. The "lucky" consumptive is the one who is discovered whilst his disease is yet without symptoms, for in most cases of this type it will be found to be present in its early stage, and consequently readily and permanently curable.

The past year has added appreciably to the number of new cases of tuberculosis in men and women discharged on that account from the Services.

A question of the greatest importance and unfortunately of steadily increasing urgency is that of finding adequate hospital accommodation for the patients found to be suffering from tuberculosis. It is common knowledge that isolation and segregation of the open, *i.e.*, infective, cases of the disease constitute our most powerful weapon in the fight against tuberculosis, and this difficulty, which has

long existed, has become greatly aggravated in recent times by the scarcity of nurses. No single factor is more prejudicial to the effective control and eradication of tuberculosis than inadequate means of isolation of infected cases. There are in the city to-day 2,675 known sufferers from tuberculosis—but only 387 beds are available in the tuberculosis hospitals for their treatment. The total number of cases treated in municipal sanatoria during the year was 767 (657 cases of pulmonary tuberculosis and 110 surgical cases of the disease). It is generally agreed that for the really effective control of the disease, for every patient who dies of pulmonary tuberculosis, there should be at least two beds available for the treatment of sufferers from it. On that basis there should be available in Edinburgh for the treatment of consumption at least 581 beds, as this disease claimed 292 victims last year. It will, of course, be readily understood that under the exigencies of prevailing conditions, such a desirable state of affairs is quite impossible of attainment. Until, however, more generous facilities are made available for the hospital accommodation of sufferers from tuberculosis, attempts to eradicate the disease are doomed to failure—unless indeed there is haply found a specific remedy for the malady, and that remedy so far has not been discovered.

Pulmonary Tuberculosis Notifications.—During 1946, there were 592 new cases reported to the Department. This represents an increase of 52 over the total for the preceding year. The incidence rate is 129 per 100,000 as compared with an average of 100 for the 1935-39 period. In the 15-20 female age group, the number of notifications is nearly double the average for the years 1935-1939. A substantial increase too has to be recorded in the male group 25-35 years. It is found that of the 592 new cases reported, no less than 30 per cent. of them live in houses of 2 rooms or less. On page 54 the graph shows the fall in the incidence and death rates, with the increases since the war in 1939.

Pulmonary Tuberculosis Deaths.—An increase of 74 deaths was recorded over the 1945 figure—292 as compared with 218. The death rate for 1945 was the lowest ever recorded for the city (0·51 per 1,000). For the past year the death rate is equal to 0·64 per 1,000.

Non-Pulmonary Tuberculosis.—In the past year, the number of new cases reported was 133, and this represents the lowest number ever recorded in a single year. The downward trend during the past twenty years is shown in the appropriate table. The death rate which in pre-war years averaged 16 per 100,000 was 13 per 100,000 during the past year. No less than 53 per cent. of the deaths were due to tubercular meningitis.

Tuberculosis Dispensaries.—The Royal Victoria Dispensary is open for the reception of patients every afternoon, on Thursday evenings and Saturday forenoons. A special session is held on Thursday forenoons for the medical assessment of applicants for Tuberculosis Maintenance Allowances, for the special examination of recruits referred by the Recruiting Medical Boards, and for the survey of ex-service personnel sent by the Ministry of Pensions for examination and report. The Thursday evening clinic is held for the convenience of patients and contacts who are working during the day so that their attendance for medical examination or supervision and after-care does not interfere with their hours of work. The dispensary Saturday forenoon clinic is primarily intended for the examination of young contacts, infants and school children. This arrangement not only obviates the necessity of school children absenting themselves from school for purposes of

medical investigation, but also prevents them from unnecessary exposure to further infection such as would result from their attendance during the busy afternoon sessions held for the ordinary adult patients.

Continued emphasis is laid on the extreme importance of contact examination, and the health visitors are tireless in their efforts to persuade all contacts to report at the dispensary for investigation. All young and adolescent contacts are submitted to medical examination, tuberculin testing, and radioscopic investigation and all positive reactors to tuberculin tests have in addition an X-ray photograph taken of the lungs. The non-reactors are not radiographed. All contacts up to late adolescence are persuaded to report for re-examination and if necessary retesting with tuberculin, every quarter. The health visitors do not always find it an easy task to convince the contacts of the necessity for this procedure. The past year has shown a further increase in the number of patients attending the dispensaries as will be seen from the table on page 50. The total of 20,898 for the Royal Victoria Dispensary constitutes a record for that institution.

The fundamental importance of housing in relation to tuberculosis requires no emphasis at this time of day. During the year 379 families made application for rehousing and reports furnishing relevant particulars were submitted in each case to the Housing Department.

Examination of recruits referred to the Tuberculosis Officer by the Recruiting Boards was begun shortly before the onset of war in 1939, and has continued uninterruptedly ever since. In the past year 215 recruits suspected by the Medical Boards as possible victims of tuberculosis were examined and X-rayed and a report furnished in each case. The number of cases of tuberculosis coming under the survey of the Ministry of Pensions shows evidence of a steady increase, and in a certain number of these patients detailed clinical and radiographic reports are furnished to the Ministry. During the year the number of such reports totalled 128. In order to assist as far as possible the Ministry of Labour authorities in their efforts to rehabilitate suitable tuberculous subjects, detailed reports are submitted on request. During the past year, 254 patients were surveyed and reported upon to the Ministry.

The pre-employment examination—clinical and X-ray—of entrants to the printing and allied trades, which was begun as a pioneer effort at the Royal Victoria Dispensary some seventeen years ago, still goes on and the youths report for medical investigation on Saturday forenoons. During the war years the number of apprentices appearing for examination appreciably diminished, but within recent months there has been a tendency to a return of pre-war standards. It is felt that this type of undertaking is well worth while, and it tends to prevent the induction of an unsuitable type of entrant to the printing and allied trades. An extension of this pre-employment examination to other trades, industries and professions would assuredly be attended with benefit both to employer and employed.

In order to sustain and further stimulate the interest of the health visitor staff of the Tuberculosis Department, a tuberculosis library has been started at the Royal Victoria Dispensary. This is gradually accumulating the latest British and American publications on all aspects of tuberculosis which are of concern and interest to the tuberculosis health visitor, and she is thus afforded an opportunity of keeping herself informed of the most up-to-date developments in anti-tuberculosis work, both at home and abroad.

Mass Miniature X-ray Unit.—A Report on the activities of the Mass X-ray Unit is submitted by Dr. P. W. Tait, Assistant Medical Director.

Acknowledgments.—It is a pleasure to record my most grateful and sincere thanks to all members of the Tuberculosis Department for their continued loyal support and generous help.

CITY OF EDINBURGH.

Return of Number of Persons Resident in the Area at 31st December 1946, who were known to be Suffering from Tuberculosis.

		NUMBER OF CASES IN AGE GROUPS.								
		Under 5 Years.	5–10 Years.	10–15 Years.	15–25 Years.	25–35 Years.	35–45 Years.	45–65 Years.	65+ Years.	TOTAL.
PULMONARY.										
(1) Sputum not Present	M	6	11	15	55	58	15	25	5	196
	F	4	12	13	65	66	27	30	4	221
(2) Sputum Present but not Examined	M	...	...	2	4	7	5	12	17	47
	F	...	1	...	11	9	...	6	19	46
(3) Sputum Examined and Tubercle Bacilli Found ...	M	...	5	10	138	132	139	132	12	568
	F	...	2	11	159	171	142	126	12	623
(4) Sputum Examined and Tubercle Bacilli never Found	M	...	7	8	32	36	35	53	11	182
	F	...	10	8	30	27	40	49	11	175
TOTAL ...		10	48	67	494	506	406	436	91	2,058
NON-PULMONARY.										
(1) Abdominal ...	M	2	5	9	16	12	2	2	...	48
	F	...	2	4	28	11	10	8	...	63
(2) Spine	M	2	8	8	17	6	8	8	1	58
	F	1	5	9	17	11	15	9	...	67
(3) Bones and Joints (Excl. of Spine)	M	4	12	21	25	11	10	8	3	94
	F	1	4	14	25	16	6	8	9	83
(4) Superficial Glands	M	2	4	10	10	6	3	3	1	39
	F	...	4	6	24	18	7	8	2	69
(5) Lupus	M	...	...	1	2	1	3	1	...	8
	F	...	...	...	3	3	1	4	3	14
(6) Other Parts or Organs	M	...	...	3	7	8	9	5	3	35
	F	1	...	3	8	13	7	7	...	39
TOTAL ...		13	44	88	182	116	81	71	22	617
GRAND TOTAL ...		23	92	155	676	622	487	507	113	2,675

PULMONARY TUBERCULOSIS.

Notifications.—There were 592 new cases of pulmonary tuberculosis reported to the Department during the year—an increase of 52 over the figure for the previous year. The incidence rate was 129 per 100,000 of the estimated population compared

with an average of 100 for the pre-war years 1935-39. The incidence continues high and while the increase was not altogether unexpected it is all the more disquieting in view of the serious shortage of hospital accommodation.

In the following table the cases are classified in age and sex groups. Males numbered 341 and females 251, the corresponding figures for 1945 being 309 and 231 respectively. Attention has been drawn to the alarming increase in the female 15-20 age group. The rise continues and during the year under review 63 cases were reported as compared with 49 in 1945 and a pre-war average of 39. There is an upward trend too in the male 25-35 group which pre-war averaged 55, fell during the war period to 52 and has now reached a peak of 84. This can without doubt be attributed to the numbers of ex-service men who contracted the disease while with the forces.

Table showing sex and age grouping :—

Sex.	Under 5	5–10	10–15	15–20	20–25	25–30	30–35	35–10	40–45	45–50	50–55	55–60	60–65	65–70	70 and over	Total.
Male	9	7	5	37	34	45	39	31	26	41	16	20	13	6	12	341
Female	3	...	11	63	47	38	27	23	13	6	4	4	2	1	9	251
Total	12	7	16	100	81	83	66	54	39	47	20	24	15	7	21	592

Cases allocated to Municipal wards :—

	Notifications.	Rate per 1000.		Notifications.	Rate per 1000.
1. Calton	25	1·4	14. George Square	30	1·9
2. Canongate	20	1·2	15. St. Leonard's	17	1·1
3. Newington	23	1·2	16. Portobello	43	1·2
4. Morningside	16	0·8	17. South Leith	43	1·6
5. Merchiston	21	1·1	18. North Leith	25	1·7
6. Gorgie	40	1·4	19. West Leith	23	1·3
7. Haymarket	12	0·6	20. Central Leith	21	1·7
8. St. Bernard's	19	0·9	21. Liberton	35	1·7
9. Broughton	22	1·4	22. Colinton	10	0·7
10. St. Stephen's	15	1·0	23. Corstorphine and Cramond	51	1·2
11. St. Andrew's	9	1·0	Institutions	20	...
12. St. Giles	30	1·9			
13. Dalry	22	1·2	Total ...	592	1·3

TUBERCULOSIS DEATH RATES IN SCOTLAND.

The death-rates quoted herewith are extracted from the Registrar-General's preliminary statement for 1946, and enable a comparison to be made with Edinburgh and other large centres of population :—

Town.	Death rate per 1000.		Town.	Death rate per 1000.	
	Pulmonary Tuberculosis.	All forms of Tuberculosis.		Pulmonary Tuberculosis.	All forms of Tuberculosis.
Glasgow	1·10	1·32	Paisley	0·88	1·01
Edinburgh	**0·64**	**0·76**	Greenock	0·96	1·10
Dundee	0·70	0·87	Motherwell&Wishaw	0·83	1·02
Aberdeen ...	0·40	0·46	Clydebank ...	0·77	0·89

SCOTLAND— Pul.T.B. 0·64 ; All forms, 0·79

CITY OF EDINBURGH.

PULMONARY TUBERCULOSIS NOTIFICATIONS.

Year.	Under 15 years.		15-20 years.		20-25 years.		25-35 years.		35-45 years.		45-55 years.		55-65 years.		65+ years.		TOTALS.			Incidence Rate per 100,000 Population.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	
1935 ...	18	19	15	26	22	40	58	52	41	23	37	18	33	12	15	8	239	198	437	95
1936 ...	7	10	23	36	37	52	55	62	39	23	18	19	36	12	13	21	258	235	493	106
1937 ...	20	17	26	47	17	43	52	45	50	35	34	23	24	10	11	6	264	226	487	104
1938 ...	12	14	26	39	31	45	58	53	46	29	44	12	28	16	14	9	259	217	476	101
1939 ...	12	18	28	47	26	32	50	41	30	21	43	20	24	14	14	10	227	206	433	92
Average 1935-39	14	16	24	39	33	42	55	51	41	26	11	18	28	13	13	11	249	216	465	100
1940 ...	14	13	40	50	25	45	45	62	56	22	41	13	25	15	19	4	265	224	489	114
1941 ...	20	28	39	53	21	27	40	62	46	26	39	19	26	9	17	7	248	231	479	111
1942 ...	25	17	51	36	24	51	55	59	53	24	33	8	34	12	9	10	284	217	501	118
1943 ...	26	32	39	66	24	58	56	64	68	41	43	12	34	10	13	6	303	289	592	142
1944 ...	16	21	46	53	31	69	66	74	57	16	42	10	31	1	5	10	294	254	548	131
Average 1940-44	20	22	43	52	25	50	52	64	56	26	40	12	30	9	13	7	279	243	522	123
1945 ...	26	18	35	49	45	50	70	67	59	24	35	12	24	9	15	2	309	231	540	127
1946 ...	**21**	**14**	**37**	**63**	**34**	**47**	**84**	**65**	**57**	**36**	**57**	**10**	**33**	**6**	**18**	**10**	**341**	**251**	**592**	**129**

PULMONARY TUBERCULOSIS DEATHS.

Year.	Under 15 years.		15-20 years.		20-25 years.		25-35 years.		35-45 years.		45-55 years.		55-65 years.		65+ years.		TOTALS.			Death Rate per 100,000 Population.
	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F	Males.	Females.	Total.	
1935 ...	7	6	4	8	9	15	28	32	31	19	30	16	26	12	16	6	151	114	265	57
1936 ...	1	5	11	9	15	21	26	30	26	20	40	13	28	9	17	16	164	123	287	62
1937 ...	2	8	10	22	19	25	33	46	28	16	22	11	30	13	8	7	152	148	300	64
1938 ...	7	3	12	23	17	29	33	28	23	22	37	3	21	10	13	5	163	123	286	61
1939 ...	4	4	7	14	15	21	21	30	33	19	41	18	25	9	17	7	163	122	285	60
Average 1935-39	4	5	8	15	15	22	28	33	28	19	34	12	26	11	14	8	159	126	285	61
1940 ...	5	8	11	22	8	21	31	41	37	12	30	16	24	13	20	9	166	142	308	72
1941 ...	3	7	9	16	10	34	31	38	31	15	27	17	31	10	18	4	160	141	301	70
1942 ...	5	5	10	22	11	32	20	41	28	17	25	7	28	11	13	14	140	149	289	68
1943 ...	6	9	10	16	8	27	31	37	36	29	36	12	31	8	16	9	174	147	321	77
1944 ...	5	9	9	17	10	25	17	32	26	27	24	7	26	3	11	7	128	127	255	61
Average 1940-44	5	8	10	19	9	28	26	38	32	20	28	12	28	9	16	9	154	141	295	70
1945 ...	1	6	8	10	10	14	20	31	32	10	28	6	18	5	14	5	131	87	218	51
1946 ...	**7**	**4**	**8**	**22**	**15**	**27**	**22**	**32**	**31**	**14**	**43**	**6**	**27**	**5**	**18**	**11**	**171**	**121**	**292**	**64**

Type of House occupied by the Infected Persons :—

1 Roomed House	2 Roomed House	3 Roomed House	4 Rooms and Over	Lodging Houses	Institutions, Etc.	Total
40	163	193	165	15	16	592

Thirty per cent. of the sufferers were living in houses of two rooms or less.

Deaths.—These numbered 292, an increase of 74 over the total for the previous year, and were equivalent to a death-rate of 0·64 per 1000 of the population, as compared with 0·51 per 1000 in 1945 and a pre-war average of ·61.

The number of deaths during the year, together with the ward death-rates, sex and age are tabulated herewith.

DEATHS AND DEATH-RATES IN MUNICIPAL WARDS OF THE CITY.

No.	WARDS.	Number of Deaths.	Rate per 1000	Sex.		Age-periods.													
				Male.	Female.	Under 15 years.		15 and under 20 years.		20 and under 25 years.		25 and under 35 years.		35 and under 45 years.		45 and under 55 years.		55 and under 65 years.		65 yrs. and upwards.	
						M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1	Calton ...	9	0·5	4	5	...	...	...	2	...	...	1	2	...	1	1	...	2	...	...	...
2	Canongate ...	10	0·6	6	4	...	...	...	...	1	1	...	1	2	...	1	...	1	...	1	2
3	Newington ...	14	0·7	11	3	...	...	1	...	...	...	2	1	1	1	3	...	3	...	1	1
4	Morningside	6	0·3	3	3	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	3
5	Merchiston ...	11	0·6	7	4	...	...	...	...	...	1	1	...	2	2	2	...	2	...	...	1
6	Gorgie ...	22	0·8	9	15	...	1	1	2	1	2	...	4	1	3	1	...	2	2	1	1
7	Haymarket...	5	0·3	3	2	...	...	...	1	...	1	1	...	...	...	1	...	1	...	...	...
8	St. Bernard's	8	0·4	7	1	1	...	1	1	1	...	...	...	2	...	1	...	1	...	...	...
9	Broughton ...	9	0·6	5	4	...	...	...	1	...	1	3	...	...	1	2	...	...	...	...	1
10	St. Stephen's	8	0·6	5	2	1	...	...	...	...	...	1	2	3	...	...	...	...	...	1	...
11	St. Andrew's	5	0·6	3	2	...	...	...	...	...	...	...	1	1	...	2	1	...	...	...	...
12	St. Giles ...	15	1·0	9	6	...	...	...	1	2	1	1	1	...	...	2	...	2	2	2	1
13	Dairy ...	15	0·8	9	6	...	...	1	2	1	2	1	1	1	1	1	...	1	...	3	...
14	George Square	19	1·2	13	6	1	1	1	...	...	1	...	2	2	1	3	...	4	1	2	...
15	St. Leonard's	8	0·5	3	5	...	...	...	2	...	3	...	...	1	...	1	...	1	...	...	...
16	Portobello ...	19	0·5	10	9	1	1	1	2	2	2	2	3	1	...	2	1	1	...	...	...
17	South Leith	23	0·9	11	12	...	...	1	1	2	2	...	8	2	...	2	1	1	...	3	...
18	North Leith	15	1·0	9	6	...	...	1	...	1	2	2	2	1	1	1	...	1	...	2	1
19	West Leith	8	0·5	4	4	1	...	...	2	...	2	1	...	1	...	1	...	...	...	...	...
20	Central Leith	10	0·8	3	7	...	...	...	2	...	3	1	1	1	1	1	...	...	...	...	...
21	Liberton ...	22	1·1	14	8	...	...	...	2	...	3	...	1	5	...	6	2	2	...	1	...
22	Colinton ...	5	0·4	2	3	...	...	...	...	...	...	...	1	...	1	1	1	1	...	...	...
23	Corstorphine and Cramond	18	0·4	15	3	1	...	...	1	4	...	3	1	3	1	3	...	...	...	1	...
	Institutions	8	...	7	1	1	1	...	...	...	...	1	...	...	...	4	...	1	...	...	...
	Totals ...	292	0·6	171	121	7	4	8	22	15	27	22	32	31	14	43	6	27	5	18	11

Deaths in Relation to Notification.—The deaths from pulmonary tuberculosis during the past 10 years are classified to show the lapse of time between notification and death. It will be observed that 64 or 22 per cent. of the cases during 1946 proved fatal within six months after notification while 58 came to the knowledge of the Department after death had actually occurred.

Year	Within 1 Month	From 1-3 Months	From 3-6 Months	From 6 Months to 1 Year	From 1-2 Years	Over 2 & Under 3 Years	Over 3 & Under 4 Years	From 4 Years Upwards	Notified After Death	Total
1937	34	26	21	38	37	20	14	64	46	300
1938	32	35	26	24	49	19	18	41	42	286
1939	13	19	19	37	52	14	27	53	51	285
1940	31	31	23	29	42	16	25	62	49	308
1941	31	28	22	28	41	17	20	59	55	301
1942	20	26	14	17	40	30	20	73	49	289
1943	22	27	25	35	42	28	14	59	69	321
1944	14	25	14	25	29	29	18	49	52	255
1945	16	17	20	20	26	16	10	41	52	218
1946	18	20	26	29	33	30	25	53	58	292

CITY OF EDINBURGH.

NON-PULMONARY TUBERCULOSIS NOTIFICATIONS.

Year.	Under 5 years.		5–10 years.		10–15 years.		15–25 years.		25–35 years.		35–45 years.		45–55 years.		Over 55 years.		TOTALS.			Incidence Rate per 100,000 Population.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	
1935 ...	19	10	28	11	22	15	22	30	12	12	7	11	5	8	10	8	125	108	233	51
1936 ...	31	24	24	23	17	14	15	30	9	10	8	12	5	6	8	6	117	125	242	52
1937 ...	31	17	24	29	13	16	26	27	13	11	6	6	5	6	3	14	121	126	247	53
1938 ...	22	17	21	30	8	11	19	33	11	16	6	9	1	1	11	6	102	126	228	49
1939 ...	16	15	12	16	11	9	17	27	9	16	3	1	10	9	3	4	81	97	178	38
Average 1935–39	24	17	22	22	14	13	20	29	11	13	6	8	5	7	7	8	109	117	226	48
1940 ...	28	15	20	8	15	16	5	22	8	9	4	4	8	8	4	...	92	82	174	41
1941 ...	24	16	9	12	5	10	18	20	8	16	1	4	12	16	4	7	81	101	185	45
1942 ...	21	13	11	12	10	10	11	26	8	13	10	4	9	7	11	4	91	89	183	43
1943 ...	18	9	6	6	15	9	12	23	5	10	6	10	2	10	4	5	68	82	150	36
1944 ...	10	9	14	2	8	13	11	23	7	14	4	11	9	12	1	3	64	87	151	36
Average 1940–44	20	12	12	8	11	12	12	23	7	12	6	7	8	10	5	4	81	88	169	40
1945 ...	10	14	6	6	9	8	8	22	4	15	2	12	5	14	3	5	47	96	143	34
1946 ...	**17**	**13**	**10**	**6**	**9**	**5**	**12**	**18**	**6**	**12**	**2**	**4**	**4**	**5**	**6**	**4**	**66**	**67**	**133**	**29**

NON-PULMONARY TUBERCULOSIS DEATHS.

Year.	Under 5 years.		5–10 years.		10–15 years.		15–25 years.		25–35 years.		35–45 years.		45–55 years.		Over 55 years.		TOTALS.			Death-Rate per 100,000 Population.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	
1935 ...	10	7	7	4	6	4	3	6	5	3	1	2	1	2	6	3	39	31	70	15
1936 ...	10	8	4	4	3	1	5	3	6	6	3	3	1	4	2	8	34	37	71	15
1937 ...	11	8	8	5	3	3	9	4	5	4	2	1	2	3	2	9	42	37	79	17
1938 ...	7	7	5	6	2	2	4	9	4	3	...	6	4	...	8	7	34	40	74	16
1939 ...	8	7	6	8	1	5	8	10	1	6	1	1	...	2	6	4	31	43	74	16
Average 1935–39	9	7	6	5	3	3	6	7	4	4	1	3	2	2	5	6	36	38	74	16
1940 ...	13	11	11	2	4	10	1	6	6	5	2	3	3	1	4	3	44	41	85	20
1941 ...	16	11	3	4	1	3	4	16	1	4	...	1	1	2	4	5	30	46	76	18
1942 ...	13	8	1	4	3	2	...	6	2	3	2	1	1	2	10	6	35	32	67	16
1943 ...	12	5	1	2	2	6	3	10	1	1	3	2	2	4	3	4	30	34	64	15
1944 ...	3	7	1	...	1	5	2	9	1	5	...	3	3	1	3	3	14	33	47	11
Average 1940–44	11	8	4	2	2	5	2	9	3	4	1	2	2	2	5	4	31	37	68	16
1945 ...	8	12	3	1	4	2	2	10	3	3	2	3	3	4	4	9	29	47	76	18
1946 ...	**5**	**9**	**3**	**4**	**3**	**4**	**6**	**1**	**5**	**2**	**1**	**3**	**4**	**2**	**3**	**4**	**30**	**29**	**59**	**13**

NON-PULMONARY TUBERCULOSIS NOTIFIED CASES AND DEATHS.

Year	Glands		Abdomen		Meninges and Central Nervous System		Lupus		Genito-Urinary		Spine		Other Bones and Joints		General Tuberculosis		Total (All Non-Pulmonary Forms)		Rates per 100,000 of Population	
	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Cases Notified	Deaths	Incidence Rate	Death Rate
1925	194	10	93	37	58	57	6	...	13	3	17	8	71	7	30	11	498	165	116	39
1930	94	5	69	25	45	41	9	...	15	3	20	4	30	...	6	12	295	90	67	21
1935	62	4	62	13	34	36	9	2	19	5	11	5	22	3	5	2	233	70	51	15
1940	42	1	17	11	46	38	1	...	6	3	9	7	33	1	6	24	174	85	41	20
1941	33	...	16	9	44	34	1	...	8	5	19	2	35	5	5	21	185	76	43	18
1942	47	2	21	11	37	24	4	3	1	3	16	3	32	4	6	17	183	67	43	16
1943	29	...	18	9	33	27	3	...	5	5	20	4	28	2	2	15	150	64	36	15
1944	41	3	13	5	27	21	1	1	4	4	21	3	25	1	3	9	151	47	36	11
1945	38	3	16	10	32	35	5	1	3	8	19	11	18	4	2	2	143	76	34	18
1946	28	3	18	4	28	31	4	...	6	4	19	5	16	5	1	7	133	59	29	13

New cases of non-pulmonary tuberculosis reported during the year numbered 133, the lowest ever recorded for the city. The incidence rate was 29 per 100,000 of the estimated population. There has been a steady decline in non-pulmonary forms of tuberculosis. Pre-war they averaged 226 (1935-39) and during the war years 169; in 1945 there were 143 cases reported.

The age incidence of the notified cases is shown in the following table :—

Sex.	Under 5	5–10	10–15	15–20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70 and over.	Total.
Male ...	17	10	9	10	2	3	3	2	...	3	1	2	...	3	1	66
Female ...	13	6	5	10	8	8	4	3	1	1	4	1	1	1	1	67
Totals ...	30	16	14	20	10	11	7	5	1	4	5	3	1	4	2	133

The largest proportion of the notified cases related to children under the age of 10 years. There were 46 in this group, representing 34 per cent. of the total. Ten years ago the percentage for the same age group was 42.

In the following table, the cases are classified to show the part of the body affected by the disease :—

Meninges and Brain	28	
Glands	28	
Spine	19	
Abdomen	18	
Hip	7	
Genito-Urinary	6	
Lupus	4	
	—	110
Bones (except Spine)—		
Thigh	1	
Rib	1	
	—	2
Joints—		
Knee	3	
Ankle	2	
Shoulder	1	
Wrist	1	
General	1	
	—	8
Others		13
Total ...		133

Deaths.—The deaths from all forms of surgical tuberculosis were 59, equivalent to a death-rate of 13 per 100,000, as compared with 76 deaths and a rate of 18 for the previous year. Fifty-three per cent. of the deaths were due to tuberculous meningitis.

Age at death, sex and the organ or region affected by the disease are shown herewith :—

Cause of Death.	All Ages.			Age Periods.										
	Both Sexes	Males	Females	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75 and over.
Tuberculous Meningitis	31	17	14	...	12	6	7	3	1	...	1	1	..	...
Tuberculosis of Intestines and Peritoneum ...	4	1	3	...	1	...	...	1	...	1	...	...	1	...
,, Vertebral Column	5	2	3	...	...	...	...	...	1	3	1	...	...	...
,, Other Bones and Joints ...	5	2	3	...	...	1	...	1	1	...	...	1	1	...
,, Skin	...	...	...	...	...	...	...	...	...		...	...	...	...
,, Lymphatic System	3	3	...	...	1	...	...	...	1	...	1	...	...	...
,, Genito-urinary System	4	2	2	...	...	...	...	...	2	...	2	...	...	...
Disseminated Tuberculosis, acute and chronic	7	3	4	...	...	...	...	2	1	...	1	...	2	1
Totals	59	30	29	...	14	7	7	7	7	4	6	2	4	1

INSTITUTIONAL TREATMENT.

The total number of beds available at the three municipal hospitals for the treatment of tuberculosis is as follows :—

Colinton Mains Hospital (Pulmonary Tuberculosis)	...	191 beds.
Royal Victoria Hospital ,, ,,	...	76 ,,
Bangour Hospital ,, ,,	...	20 ,,
,, ,, (Non-Pulmonary Tuberculosis)	...	100 ,,
		387 beds.

CITY OF EDINBURGH.

Return showing the number of Tuberculosis Patients Treated in Municipal Sanatoria during the year 1946.

	Remained at 1st Jan. 1946.	Admitted During year.	Discharged.	Died.		Remaining at 31st Dec. 1946.
				Over 28 Days Residence.	Under 28 Days Residence.	
PULMONARY.						
Adults M ...	126	232	154	38	18	148
Adults F ...	112	155	124	25	10	108
Children M ...	11	9	11	1	...	8
Children F ...	8	4	7	...	...	5
Total ...	257	400	296	64	28	269
NON-PULMONARY.						
Adults M ...	20	10	19	1	...	10
Adults F ...	28	7	14	2	...	19
Children M ...	22	4	5	...	...	21
Children F ...	16	3	8	...	...	11
Total ...	86	24	46	3	...	61
Grand Total ...	343	424	342	67	28	330

Royal Victoria Hospital.—This hospital, containing 76 beds, is reserved for the treatment of early cases of consumption. In consequence, many of the patients admitted are found to be eminently suitable for treatment by artificial pneumothorax therapy. During the past year 110 patients were admitted and pneumothorax treatment was instituted in 49 cases—*i.e.*, fully 44 per cent. of admissions. After the pneumothorax patient is discharged to resume work, arrangements are made for him to have the necessary treatment continued as an out-patient at the hospital.

During the past year the accommodation has been fully taxed. In common with other tuberculosis institutions, the nursing problem has given rise to increasing concern. At no time during the year were the services of the full nursing staff available; indeed there were periods when the nursing personnel was below 50 per cent. of normal. Towards the end of the year, however, it became necessary to enlist the services of male orderlies in the male wards and this alleviated considerably the acuteness of the problem. The Ministry of Labour and National Service has been most helpful in responding to our appeal for applicants for these posts, but it is somewhat disappointing to have to make requests for help at such short intervals owing to the fact that resignations from orderlies after a short period of duty in the wards are of frequent occurrence.

The Tuberculosis Department is indeed fortunate in having at its disposal the services of two eminent thoracic surgeons in the persons of Mr Walter Mercer, F.R.C.S., consultant surgeon to the Royal Victoria Dispensary, and Mr Andrew Logan, F.R.C.S. Their most helpful and willing co-operation in consultations and in undertaking the necessary surgical procedures both in pulmonary and surgical cases of tuberculosis is deeply appreciated and gratefully acknowledged.

A new Chaplain was appointed during the year following the resignation of the former incumbent. Religious services are held in the hospital hall every Sunday afternoon, and are largely attended by the patients.

From time to time concert parties and cinema shows are held and the entertainment thus afforded is much appreciated by the patients. The services of the occupational therapist are in great demand and the patients find both interest and amusement in the making of such articles as rugs, gloves, embroidery work, toys, etc.

Through the kindness of Mr R. Butchart, F.L.A., City Librarian, the library at the Royal Victoria Hospital has been appreciably increased by the addition of a large number of modern books comprising works of fiction, travel, biography, etc. This service is much appreciated by the patients.

Table showing the number of patients treated in the Royal Victoria Hospital during the year:—

		Remained at 1st Jan. 1946.	Admitted.	Discharged.	Died.		Remaining at 31st Dec. 1946.
					Over 28 Days Residence.	Under 28 Days Residence.	
Adults	M ...	28	49	43	...	...	34
	F ...	37	53	52	1	...	37
Children	M ...	8	4	8	...	...	4
	F ...	2	4	4	...	...	2
Totals ...		75	110	107	1	...	77

Age and sex distribution of the discharged :—

Sex.	Under 5	5–10	10–15	15–20	20–30	30–40	40–50	50–60	Over 60	Total.
Males	...	2	8	8	15	10	6	2	...	51
Females	...	...	7	10	26	12	2	...	...	57
Totals ...	...	2	15	18	41	22	8	2	...	108

The average length of residence was 212 days.

Colinton Mains Hospital.—Only pulmonary cases are treated at Colinton Mains and most of these are " advanced " cases where the chances of complete recovery are slight. Eighty-nine deaths, representing 20 per cent. of the total treated during the year, occurred.

Table shows the number of patients treated :—

		Remained at 1st Jan. 1946.	Admitted.	Discharged.	Died.		Remaining at 31st Dec. 1946.
					Over 28 Days Residence.	Under 28 Days Residence.	
Adults	M ...	95	181	106	38	18	114
	F ...	67	99	66	22	10	68
Children	M ...	3	5	3	1	...	4
	F ...	5	...	3	...	...	2
Totals ...		170	285	178	61	28	188

In the course of the year, 178 patients were discharged and 89 died.

The age and sex distribution of these 267 patients were as under :—

	Under 5	5–10	10–15	15–20	20–30	30–40	40–50	50–60	Over 60	Total.
Males	4	3	1	21	34	31	34	23	14	165
Females	...	1	1	27	43	22	4	3	1	102
Totals ...	4	4	2	48	77	53	38	26	15	267

The average length of residence was 177 days.

Bangour Hospital.—Twenty beds are set aside at Bangour for the treatment of patients suffering from pulmonary tuberculosis and 100 for non-pulmonary forms. Seventeen of the former and 110 of the latter were treated during the year.

The following tables show the number of patients treated :—

I.—Pulmonary Tuberculosis.

		Remained at 1st Jan. 1946.	Admitted.	Discharged.	Died.		Remaining at 31st Dec. 1946.
					Over 28 Days Residence.	Under 28 Days Residence.	
Adults	M ...	3	2	5	...	...	...
	F ...	8	3	6	2	...	3
Children	M ...	...	...	...	...	...	...
	F ...	1	...	...	...	...	1
Totals ...		12	5	11	2	...	4

II.—Non-Pulmonary Tuberculosis.

		Remained at 1st Jan. 1946.	Admitted.	Discharged.	Died.		Remaining at 31st Dec. 1946.
					Over 28 Days Residence.	Under 28 Days Residence.	
Adults	M ...	20	10	19	1	...	10
	F ...	28	7	14	2	...	19
Children	M ...	22	4	5	...	...	21
	F ...	16	3	8	...	...	11
Totals ...		86	24	46	3	...	61

Age and sex of non-pulmonary cases admitted :—

Sex.	Under 5	5–10	10–15	15–20	20–30	30–40	40–50	50–60	Over 60	Total.
Males	2	1	1	3	3	3	1	...	...	14
Females	3	...	...	...	5	...	1	1	...	10
Totals ...	5	1	1	3	8	3	2	1	...	24

The site of the disease in the 24 admissions was as under :—

Part Affected.	Males.	Females.
Spine	6	7
Abdomen	2	1
Genito-Urinary	2	...
Glands	1	...
Hip	1	...
Knee	1	...
Shoulder	1	1
Rib	...	1
Totals	14	10

Classification of discharges and deaths :—

Parts Affected on Admission.	Males.	Apparently Cured.	Improved.	Not Improved.	Died.	Females	Apparently Cured.	Improved.	Not Improved.	Died.	Totals.
Spine ...	8	1	4	2	1	9	...	5	1	..	17
Knee ...	4	...	4	...	...	1	...	1	...	...	5
Renal ...	4	...	3	1	...	...	...	...	..	...	4
Cervical Glands	2	1	1	...	...	3	1	2	...	.	3
Abdomen ...	1	...	1	...	...	2	...	2	..	...	3
Elbow ...	1	...	1	...	...	...	...	...	...	...	1
Shoulder ...	1	...	1	...	...	1	...	1	...	...	2
Mastoid ...	1	...	1	...	...	...	...	...	...	...	1
Tarsus ...	1	...	1	...	...	...	...	...	...	...	1
Hip	1	1	...	...	...	5	...	2	1	2	6
Metacarpus...	1	1	...	...	...	1	...	1	...	...	2
Ovaries ...	...	...	...	...	...	1	...	1	...	...	1
Wrist ...	...	...	...	...	...	1	...	1	...	...	1
Totals ...	25	4	17	3	1	24	1	19	2	2	49

TUBERCULOSIS DISPENSARIES.

The Corporation provide two dispensaries in connection with the scheme, the premises being conveniently situated to meet the requirements of the residents in different districts of the City.

The following table shows the number of attendances during the year at each of the two dispensaries :—

	New Cases.		Old Cases.	
	Edinburgh.	Leith.	Edinburgh.	Leith.
Men	1,596	22	6,748	691
Women	1,456	124	6,037	919
Children	771	204	4,290	721
Totals ...	3,823	350	17,075	2,331

Examination of Contacts.—There were 1,883 contacts examined. Of these, 35 proved positive and 1,838 negative : 10 were doubtful cases.

Examination of Sputa.—The number examined was 2,481 of which 477 were positive and 2,004 negative.

X-ray Examinations.—Chest 3,014 ; Screenings 14,300.

Home Visitation.—The medical and nursing staff paid 14.039 visits to patients at their homes, the numbers in each month being as follows :—

	Insured.	Not Insured.	Total.
January	886	471	1,357
February.... ...	742	394	1,136
March	791	489	1.280
April	632	393	1 025
May	668	445	1,113
June	787	380	1.167
July	536	274	810
August	768	448	1,216
September ...	635	410	1.045
October	954	573	1,527
November ...	794	545	1,339
December ...	589	435	1,024
Totals ...	8,782	5,257	14,039

Drugs.—The Public Health Department makes itself responsible for the issue, free of charge, of all necessary drugs and medicines to patients attending the tuberculosis dispensaries.

The cost of prescriptions granted by medical practitioners to tuberculous patients, and dispensed by panel chemists, is also borne by the Department. In order to secure uniformity in pricing, these prescriptions are checked by the Central Checking Bureau for Scotland, and in all 1,829 were issued in the course of the year at a total cost of £452, 10s. 9d.

MAINTENANCE ALLOWANCES.

In many instances the provision of maintenance allowances has proved a great boon to successful applicants and has, in not a few cases, unquestionably determined acceptance of treatment in the knowledge that in their absence from work their dependants would not suffer financial hardship. During the year 138 applications were received for tuberculosis allowances, and of that number 68 were refused on medical grounds.

It is unfortunately not generally recognised amongst patients that tuberculosis maintenance allowances are primarily intended only for sufferers who, as a result of a period of treatment (or observation) are likely to regain working capacity. They are not meant to be applied in cases where treatment can not do more than "alleviate a chronic condition." Ignorance of this fact frequently causes, in unsuccessful applicants, a keen sense of disappointment, frustration, and injustice.

The benefits of maintenance allowances are extended only to suitable cases of pulmonary tuberculosis; victims of other forms of the disease are not eligible under existing regulations. It is perhaps difficult, on general principles, to justify this invidious distinction, for the dependants of a sufferer from, say, tuberculosis of the spine or kidney, are just as liable to suffer acute economic hardship during his treatment as are those of the consumptive who is eligible for the benefits of maintenance allowances.

The following particulars relate to the granting of maintenance allowances, discretionary allowances and special payments during the year:—

No. of Applications for Tuberculosis Allowances		138
No. of Tuberculosis Allowances granted		63
Maintenance	63	
Discretionary	41	
Special Payments	1	
No. refused on medical grounds		68
No. refused on assessment		5
No. withdrawn by applicant		2
No. under consideration at 31st December 1946		Nil
No. of Tuberculosis Allowances payable on 31st December 1946		45
No. withdrawn—fit to resume work		44

MASS MINIATURE X-RAY UNIT.

The Mass Radiography Unit opened for full-time work on 4th March 1946, having carried out examinations on a part-time basis during the months of June and September 1945 and January and February 1946.

The scheme in Edinburgh is applied to workers in and residents of the City of Edinburgh. The X-ray examination is voluntary and confidential between the individual and the medical staff, and the response by the various businesses and industrial firms has varied considerably.

During the year 1946 the Unit functioned at its headquarters at 323 High Street, except for one occasion when the equipment was transported for seven days to the premises of a large factory and examinations were carried out on the employees there and also on the employees of a neighbouring business undertaking. The response by the employees of both firms was good and with the examinations being carried out on the premises, there was little interference with production.

At the present time it is difficult to get the fullest co-operation of the industrial firms, owing to the fact that the loss of time entailed in travelling to and from the X-ray Unit at the High Street means interruption and loss of production. A much greater response from both the firms and employees would result if, provided that the number of volunteers coming forward made it economically worth while, the Unit could be moved to suitable sites adjacent to the factories concerned. The examinees from the various factories in the area would then report to the Unit and little or no loss of time would result.

Propaganda and personal contact with managements of works and businesses and shop stewards is essential to the fullest use being made of the Unit, and that can only be carried out efficiently by a Liaison Officer working wholly as an outside agent. During 1946 there was no Liaison Officer attached to the Unit, the contact being made by letter, telephone and medical officer.

In the following tables, the main results of the examinations carried out during 1946 are shown :—

The total number of individuals X-rayed up to 31st December 1946 was :—

Males	15,043
Females	12,570
Total ...	27,613

Large Film Investigations.

	Males.	Females.	Total.
Number recalled for large film examination ...	468	287	755
Percentage of examinees required to attend for large film examination	3·11	2·28	2·73
Number who did not attend	23	14	37
Number examined	445	273	718

Clinical Investigations.

	Males.	Females.	Total.
Number recalled for clinical examination ...	328	195	523
Percentage of examinees recalled for clinical examination following large film examination	2·19	1·55	1·89
Number who did not attend	5	6	11
Number clinically examined	323	189	512

Age Groups of Examinees.

	Under 20 years.	20–25 years.	25–35 years.	35–45 years.	45–55 years.	55+ years.	Totals.
Males	3,512	1,154	3,243	3,465	2,543	1,126	15,043
Females ...	4,195	3,022	2,541	1,708	901	203	12,570
Both Sexes ...	7,707	4,176	5,784	5,173	3,444	1,329	27,613

Cases Diagnosed Pulmonary Tuberculosis (Post Primary).

	Active.	Inactive.	Total.
Males	47	118	165
Females	20	89	109
Both Sexes	67	207	274

Analysis of 274 Cases of Pulmonary Tuberculosis (Post Primary) showing number of Cases in each Age Group, with corresponding Percentages (in brackets).

		Under 20 years.	20–25 years.	25–35 years.	35–45 years.	45–55 years.	55+ years.	Total.
Males ...	No. of Examinees	3,512	1,154	3,243	3,465	2,543	1,126	15,043
	Active	4 (·11)	6 (·52)	20 (·61)	9 (·25)	3 (·11)	5 (·44)	47 (·31)
	Inactive	10 (·28)	8 (·69)	22 (·67)	32 (·92)	29 (1·14)	17 (1·51)	118 (·78)
Females ...	No. of Examinees	4,195	3,022	2,541	1,708	901	203	12,570
	Active	4 (·09)	3 (·09)	7 (·28)	3 (·18)	3 (·33)	... (...)	20 (·15)
	Inactive	26 (·62)	21 (·69)	23 (·90)	10 (·58)	4 (·44)	5 (2·46)	89 (·70)
Both Sexes	No. of Examinees	7,707	4,176	5,784	5,173	3,444	1,329	27,613
	Active	8 (·10)	9 (·22)	27 (·47)	12 (·23)	6 (·17)	5 (·38)	67 (·24)
	Inactive	36 (·47)	29 (·69)	45 (·78)	42 (·81)	33 (·96)	22 (1·65)	207 (·74)

No. of Cases referred to panel doctor for further investigation ... 229

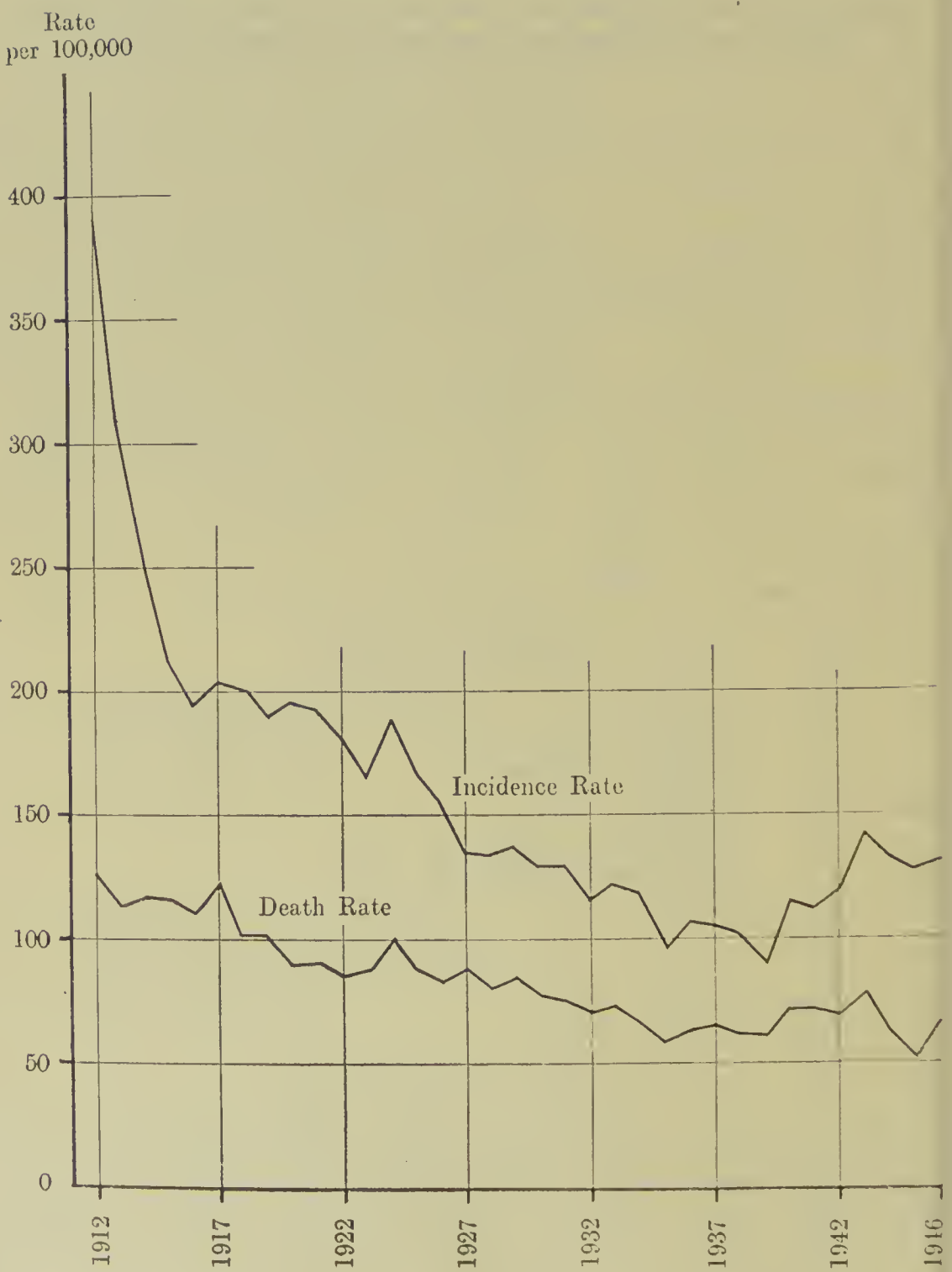
Other Conditions Diagnosed.

1. Diseases of heart and blood vessels 63
2. Bronchiectasis 8
3. Diaphragmatic hernia 4
4. Silicosis and pneumokoniosis 7
5. Tumours 10
6. Dermoid cysts 2
7. Hydatid cyst 1
8. Metallic foreign bodies in lung 4

CITY OF EDINBURGH

PULMONARY TUBERCULOSIS

Incidence and Death Rates per 100,000 of the Population



CITY HOSPITAL FOR INFECTIOUS DISEASES.

REPORT BY THE MEDICAL SUPERINTENDENT.

The number of patients admitted to the City Hospital during 1946 was 2,991, of which 285 were suffering from tuberculosis. The highest number of patients treated on any one day was 427 on 4th June, the result of a brisk but limited summer outbreak of measles, and the lowest, 294, on 21st September. Judged by previous records the total number of admissions was low, which was fortunate, as the staffing position during 1946 was anything but satisfactory.

Of the fever admissions 125 were service patients and 78 were admitted at the request of neighbouring local authorities. Efforts were made in a number of instances to induce the latter to accept responsibility for maintenance of patients who found their way to the City Hospital by way of the out-patient departments of the city general hospitals.

The marked decline in the number of diphtheria and scarlet fever patients accounts for the fall in the total admissions. Diphtheria admissions, numbering 188, were by far the fewest in the hospital records, the previous lowest being 311 in 1939. It is tempting to ascribe the 1946 figure to diphtheria immunisation, and probably most would be content to accept this explanation, but no such explanation can be advanced to account for the drop in scarlet fever admissions which were also the fewest in the history of the hospital. In connection with the latter disease it also falls to be stated that not a single death from scarlet fever occurred in the hospital in 1946. As far as can be ascertained from former reports this also is unique. Other noteworthy statistics during the year were the measles and whooping-cough case fatality rates, 0·41 and 3·75 per cent. respectively. These are by far the most favourable ever experienced.

Administration.—No major developments were possible during 1946. A commencement was made to replace equipment as far as that was available and to carry out much needed repairs and painting, both internal and external, of buildings. The main administrative problems arose out of shortage of domestic and nursing staff. Some improvement in domestic staff shortages was obtained by the employment of males, but the problem of nursing staff shortages remained more or less acute throughout the year during which the downward trend of our overhead numbers continued. Compared with 1945 the decline in recruitment was not so marked owing to the decision to employ male nursing orderlies and student nurses, the first of whom took up duty in May 1946. Overhead numbers however do not necessarily indicate the true strength of the nursing staff at any given moment, unavoidable absences causing considerable fluctuation in those available for duty. The main causes of these are annual leave, sickness, and special leave in cases of serious illness in near relatives, and that these may make serious inroads on the availability of staff will be appreciated when it is pointed out that on 15th September we had only 115 nurses available for duty out of 156. This figure gave the matron and myself considerable cause for concern as the relatively large numbers due for annual leave had been foreseen for some time, and it was difficult to solve the problem of how we were to meet our commitments in respect of the nursing

care of the comparatively large proportion of pulmonary tuberculosis patients at present accommodated in the City Hospital. These difficulties were met to some extent by the allocation of male nursing orderlies to the male tuberculosis wards but the situation at the end of the year still remained uncertain.

Medical Instruction.—Two hundred and eighteen undergraduates attended demonstrations in acute infectious diseases at the hospital, these being divided into six sections involving approximately 90 hours' teaching. The University D.P.H. course in clinical practice and fever hospital administration was revived in 1946 and involved 40 hours' teaching in the spring and summer terms. During the summer term the Polish students received instruction from their own teachers in the wards of the hospital.

Training of Nurses.—Opportunity was taken during the year to extend the preliminary training period of new entrants to three weeks, a development which has already proved beneficial. Thirty-five nurses completed their training and 31 were granted State Registration as fever nurses after examination. Eight nurses from Kirkealdy Hospital, which is affiliated to us, received one year's training here, and 2 nurses from Sanderson Hospital, Galashiels, also affiliated to us, completed two years' training. Thirty-one nurses went to general training schools, and 9 left on marriage.

The nurses' prize-giving and reunion was held on 26th June and the opportunity was taken of resuscitating the award of the " Claude Buchanan Ker Memorial Medal " after a lapse of approximately twenty years. This prize is awarded to the nurse with the best record in practical and theoretical work throughout her three years' training and was won by Nurse A. Adams. We were fortunate in having with us to present the prizes Dr. C. C. Easterbrook, formerly Medical Superintendent of the Crichton Royal Mental Hospital, Dumfries, a resident at the Old Fever Hospital in the High School Yards in 1894, and a close personal friend of the late Dr. Ker. In an address he recalled many interesting features of life in the old hospital and mentioned that, at the request of the then matron, Miss Sandford, he gave a course of lectures on fevers to the nursing staff, the first of its kind in the history of the hospital. The lectures were given at 7.30 a.m. as being the most suitable time for both day and night staffs.

Acknowledgments.—It is again a pleasure to tender my sincere thanks to the Matron, Steward, heads of departments, and ward sisters for their good work during the year. My senior assistant, Dr. Scott Forrest, left to undertake post-graduate studies and Dr. A. Whyte returned from war service to resume his appointment as senior assistant. On receiving another post in December he was succeeded by Dr. Margaret Main, and to all I wish to express my thanks for their untiring support.

BACTERIOLOGICAL SERVICES.

The following report is submitted by the Director of Bacteriological Services (Professor T. J. Mackie) on the work carried out for the City by the Bacteriology Department of Edinburgh University during the year 1946.

The total number of examinations was 41,030 as compared with 37,257 in 1945, an increase of 3,773. The number of examinations for the Municipal Hospitals was 27,657, as compared with 24,111 in 1945. The number for the General Hospitals was 14,741 as compared with 9,679 in 1945, an increase of 5,062 ; this was mainly in respect of the Western General Hospital. The work done for the City Infectious Diseases Hospital showed a substantial diminution, from 7,772 examinations in 1945 to 5,099 in 1946, due mainly to the reduced number of examinations for diphtheria and dysentery.

Year by year these services for the City Public Health Department and its hospitals have steadily increased, and the year under review shows the same definite trend.

Diagnostic work required in cases of diphtheria, including virulence tests and determination of the biological type of diphtheria bacillus, was considerably less than in 1945. The most prevalent type of bacillus was the *gravis* type, though the *relative* prevalence of this variety has steadily declined in recent years.

Last year an increased number of diagnostic examinations for tuberculosis was recorded and again in 1946 there was a further increase. This branch of the work has also involved a larger number of animal inoculation tests.

The number of examinations for dysenteric infection showed a marked diminution, with a corresponding decline in the number of cases proved by bacteriological investigation to be due to dysentery bacilli. In 1945 the Sonne type of dysentery bacillus became predominant but at the same time the Newcastle type assumed a relatively high prevalence, somewhat higher than that of the Flexner type. It is of interest that in 1946 the Sonne type maintained its relative predominance while the Newcastle type occupied a second place in order of prevalence ; the Flexner type, which in 1944 was the predominant organism, in 1946 was responsible for a relatively small proportion (about 8 per cent.) of the cases diagnosed in the laboratory.

As in recent years the number of typhoid, paratyphoid and other *Salmonella* infections (proved in the laboratory) was small. One case of undulant fever due to *B. abortus* was diagnosed bacteriologically. One case of leptospiral jaundice was also recognised.

The " verification " serological test for syphilis referred to in previous annual reports again proved its value in cases presenting diagnostic difficulty.

Water samples examined amounted to 863. The number of milk samples examined was 1,480, a considerable increase as compared with 1945 ; these examinations included the bacterial count, *B. coli* test, methylene blue test and phosphatase reaction, the last as a control test for efficient pasteurisation. In addition 127 specimens of milk were examined for the presence of the tubercle bacillus ; of these six were positive.

The tables which follow give numerical details of the work done in all categories and the more important results obtained ; the examinations for Municipal Hospitals are separately tabulated. Brief references are also made to certain special investigations of public health interest.

The Bacteriological Services have been carried out under the direction of Professor T. J. Mackie.

The Professional Staff of the University who took part in the work during 1946 were :—Dr. J. C. J. Ives, Lecturer for Bacteriological Services, Drs. Helen A. Wright, G. B. Ludlam, A. F. Maccabe and J. P. Duguid, Lecturers. Miss Joyce Cranfield, B.Sc., Assistant. Assistance was also given by Dr. A. T. Wallace (attached to the Bacteriology Department).

ROUTINE BACTERIOLOGICAL EXAMINATIONS

(including examinations for Municipal Hospitals).

				Total
Swabs from throat, nose and ear examined for *B. diphtheriæ*	Positive	124		2,540
Cultures for *B. diphtheriæ*: determination of biological types, and virulence tests	Positive	595		1,287
Swabs from throat, nose and ear for hæmolytic streptococci and general bacteriological examination				
	Positive	Hæmolytic streptococci	1,094	
		Vincent's infection	52	4,690
Determination of types of hæmolytic streptococci				41
"Cough-plate" for *B. pertussis*	Positive	1		17
Sputum examined for *B. tuberculosis* by the microscopic method*	Positive	889		5,487
Urine, fæces, pus and stomach washings examined for *B. tuberculosis* by the microscopic method	Positive	43		580
Cultivation test for *B. tuberculosis*† (sputum and other specimens)	Positive	471		6,098
Animal inoculation of sputum, pus, etc., for *B. tuberculosis*	Positive	212		683
Pleural and peritoneal fluids for general bacteriological examination (including examination for *B. tuberculosis* by the microscopic method*)				246
Cerebro-spinal fluid for general bacteriological examination including examination for *B. tuberculosis* (by microscopic method)‡	Positive	Meningococcus	26	
		Pneumococcus	2	
		B. tuberculosis	2	198
Blood culture (general)	Positive	*B. typhosus*	2	
		Streptococcus viridans	1	
		Staphylococcus aureus	4	164
Blood for Widal reaction (including agglutination test for *B. abortus*)	Positive	*B. typhosus*	2	
		B. paratyphosus B.	1	
		B. abortus	1	94
Blood-clot-cultures from specimens submitted for Widal reaction				60
Fæces and urine‡ examined for organisms of enteric and dysentery groups ...	Positive	*B. typhosus*	2	
		B. paratyphosus B.	1	
		Organisms of *Salmonella* group (other than typhoid-paratyphoid bacilli)	2	
		B. dys. Flexner type	46	
		B. dys. Sonne ,,	174	
		B. dys. Newcastle ,,	107	2,962
		Carry forward ...		25,147

* After "concentration" of specimen.
† Negative by microscopic method.
‡ This number includes repeat tests.

Brought forward ...			25,147
Number of cases proved by isolation of specific organism and/or serological examination to be due to :—			
B. typhosus		2	
B. paratyphosus B.		1	
Other organisms of *Salmonella* group		2	
B. dysenteriæ Flexner type		15	
B. dysenteriæ Sonne type		99	
B. dysenteriæ Newcastle type		67	
B. abortus		1	
Fæces examined for protozoa and helminth ova Positive { *Entamœba histolytica*		1	
{ *Strongyloides stercoralis*		1	
{ *Ascaris lumbricoides*		1	
Blood examined for *Leptospira icterohæmorrhagiæ* (animal inoculation) Positive	1		1
Blood examined for agglutination of *Leptospira icterohæmorrhagiæ* Positive	1		8
Urine examined for *Leptospira icterohæmorrhagiæ*			2
Pus for general bacteriological examination, including exudate from wounds			221
Staphylococcus coagulase test			25
Urine for general bacteriological examination			1,172
Sputum for general bacteriological examination			636
Blood for Wassermann reaction ... ... Positive	139		3,190
Syphilis Flocculation test—method of Bacteriology Department, Edinburgh University ... ... Positive	145		3,159
Syphilis Flocculation test—Kahn method ... ... Positive	70		163
Kahn " verification test " for syphilis ... ... Positive	47		86
Cerebrospinal fluid for Wassermann reaction ... ... Positive	14		114
Cerebrospinal fluid for colloidal gold test ... ... Positive	25		91
Cerebrospinal fluid for cytological examination, protein, sugar and chlorides			202
Cerebrospinal fluid for globulin			26
Vaginal, uterine, urethral swabs and smears for hæmolytic streptococci, gonococcus and general bacteriological examination. Positive (Hæmolytic streptococci)	61		1,300
Conjunctival swabs and smears for gonococcus and general bacteriological examination			104
Complement fixation test for gonococcal infection ... ... Positive	5		122
Paul-Bunnell test for Glandular fever ... ... Positive	11		49
Blood for Weil-Felix reaction			4
Blood for malaria parasites			7
Food for general bacteriological examination			17
Penicillin sensitivity test			71
Sulphanilamide sensitivity test			27
Serum colloidal gold test			5
Water specimens for complete bacteriological examination			202
Water specimens for presumptive *B. coli* test			661
Total water specimens examined 863.			
Milk specimens for bacterial count			1,035
Milk specimens for *B. coli* content			1,409
Milk specimens for methylene blue reduction test			1,032
Milk specimens for phosphatase test			543
Total milk specimens received for above examinations, 1,480.			
Milk for *B. tuberculosis* by animal inoculation ... ... Positive	6		127
Autogenous vaccines prepared			2
Miscellaneous examinations			70
			41,030

EXAMINATIONS FOR MUNICIPAL HOSPITALS.

Western, Eastern, Southern and Northern General Hospitals.	Total
Throat, nose and ear swabs for *B. diphtheriæ* including determination of biological types and virulent tests	263
Throat swabs for hæmolytic streptococci and general bacteriological examination	1,391
"Cough-plate" for *B. pertussis*	2
Sputum, pus, urine, fæces and stomach washings for *B. tuberculosis* by the microscopic method	1,402
Cultivation test for *B. tuberculosis*	1,414
Animal inoculation for *B. tuberculosis*	283
Pleural and peritoneal fluids for general bacteriological examination (including examination for *B. tuberculosis* by the microscopic method)	151
Cerebrospinal fluid for general bacteriological examination (including examination for *B. tuberculosis* by the microscopic method)	33
Blood for Widal reaction	46
Blood-clot-cultures from specimens submitted for Widal reaction	34
Fæces and urine for organisms of enteric or dysentery group	423
Fæces examined for protozoa and helminth ova	43
Blood for culture	113
Blood examined for agglutination of *Leptospira icterohæmorrhagiæ*	10
Urine examined for *Leptospira icterohæmorrhagiæ*	2
Sputum, pus, urine and fæces for general bacteriological examination	1,641
Blood for Wassermann reaction	2,902
Syphilis flocculation test—method of Bacteriology Department, Edinburgh University	2,891
Syphilis flocculation test—Kahn method	152
Kahn "verification test" for syphilis	50
Cerebrospinal fluid for Wassermann reaction	108
Cerebrospinal fluid for cytological examination, protein, globulin, sugar, chlorides and colloidal gold tests	157
Vaginal, uterine, urethral and conjunctival swabs and smears for hæmolytic streptococci, gonococcus and general bacteriological examination	979
Complement-fixation test for gonococcal infection	112
Paul-Bunnell test for Glandular fever	30
Blood for Weil-Felix reaction	4
Blood for malaria parasites	3
Food for general bacteriological examination	3
Penicillin sensitivity test	62
Sulphanilamide sensitivity test	10
Serum colloidal gold test	2
Autogenous vaccines prepared	2
Miscellaneous examinations	23
	14,741

Western General Hospital	8,980
Eastern General Hospital	4,384
Southern General Hospital	1,334
Northern General Hospital	43
	14,741

City Hospital for Infectious Diseases.	Total
Swabs from throat, nose and ear examined for *B. diphtheriæ*	15
Cultures for *B. diphtheriæ*: determination of biological type and virulence tests	1,246
Swabs from throat, nose and ear for general bacteriological examination	90
Sputum, pus, urine, fæces and stomach washings for *B. tuberculosis* by the microscopic method	236
Cultivation test for *B. tuberculosis*	260
Animal inoculation test for *B. tuberculosis*	84
Pleural and peritoneal fluids for general bacteriological examination (including examination for *B. tuberculosis* by the microscopic method)	162
Blood for Widal reaction	16
Blood-clot-cultures from specimens submitted for Widal reaction	11
Fæces and urine for organisms of enteric and dysentery group	2,028
Fæces examined for protozoa and helminth ova	11
Blood for culture	43
Blood examined for agglutination of *Leptospira icterohæmorrhagiæ*	1
Sputum, pus and urine for general bacteriological examination	258
Blood for Wassermann reaction	40
Syphilis flocculation test—method of Bacteriology Department, Edinburgh University	39
Syphilis flocculation test—Kahn method	2
Kahn "verification test" for syphilis	7
Cerebrospinal fluid for Wassermann reaction	2
Cerebrospinal fluid for cytological examination, protein, globulin, sugar and chlorides	156
Vaginal, uterine and urethral swabs and smears for hæmolytic streptococci, gonococcus and general bacteriological examination	357
Conjunctival swabs and smears for general bacteriological examination	2
Complement fixation test for gonococcal infection	4
Paul-Bunnell test for Glandular fever	12
Food for general bacteriological examination	1
Serum colloidal gold test	1
Miscellaneous examinations	15
	5,099

Royal Victoria Hospital and Dispensary.	Total
Swabs from throat, nose and ear examined for *B. diphtheriæ*	2
Swabs from throat, nose and ear for general bacteriological examination	10
Sputum for *B. tuberculosis* by the microscopic method	3,396
Pus, urine, fæces and stomach washings for *B. tuberculosis* by the microscopic method	280
Cultivation test for *B. tuberculosis*	3,661
Animal inoculation test for *B. tuberculosis*	278
Pleural and peritoneal fluids for general bacteriological examination (including examination for *B. tuberculosis* by the microscopic method)	34
Sputum, pus, fæces, urine for general bacteriological examination	6
Blood for Wassermann reaction	72
Syphilis flocculation test—method of Bacteriology Department, University of Edinburgh	70
Syphilis flocculation test—Kahn method	1
Kahn "verification test" for syphilis	2
Blood for malaria parasites	2
Penicillin sensitivity test	3
	7,817

Total for Municipal Hospitals 27,657

SPECIAL INVESTIGATIONS.

THE MECHANISM OF TRANSMISSION OF PATHOGENIC ORGANISMS AFFECTING THE RESPIRATORY TRACT.

The prevention and control of infective respiratory tract disease is one of the most important and urgent problems confronting public health and medical science to-day. The planning and application of effective preventive measures are rendered difficult through lack of full knowledge of the mechanisms whereby the causative pathogenic organisms are spread from person to person. A number of different mechanisms of transmission appear possible, and it is not known to what extent each of these is concerned in the spread of infection. Firstly, there is transmission by contact and fomites. The pathogenic organisms may be expelled from the nose or mouth of the infector, a patient or healthy "carrier," either in droplet-spray produced by sneezing, coughing or speaking, or in massive discharges of exudate such as sputum or "nose-blow." The larger droplets, projected 4 or 5 feet forward from the mouth, may strike and so contaminate the person and clothing of the recipient of infection. Furthermore, the large droplets and also the massive discharges may contaminate the hands and clothing of the infector, the floor and furnishings of his environment, food, milk or eating utensils. By contact, most probably with use of the hand, the pathogenic organisms may be transferred from such contaminated surfaces to the mouth of the recipient. As well as transmission by contact, there may be air-borne infection with "droplet-nuclei" or dust-particles. The small droplets expelled in droplet-spray (those less than 1/10 mm. in diameter) evaporate almost immediately after leaving the mouth; their minute solid residues—"droplet-nuclei"—may remain air-borne for some minutes or even for some hours, and in this time they may drift far throughout a room or building. Infected dust-particles may be liberated into the air during such activities as dressing, bed-making, sweeping and simple body movements, from the surfaces contaminated by the large droplets and massive discharges; these dust-particles may remain air-borne for several minutes before settling. The recipient can become infected by inhaling the air-borne droplet-nuclei or dust-particles.

During the last few years, a study of the mechanisms of spread has been carried out in Edinburgh. By a variety of techniques, observations were made of the number of droplets expelled during different expiratory activities and also of the number of these droplets small enough to remain air-borne as droplet-nuclei. The minimum, maximum and average number of droplets expelled in a series of tests for each expiratory activity, were :—

One Sneeze	65,000—3,100,000;	average :	1,100,000
One Cough	490— 52,000;	average :	6,500
Speaking loudly 100 words ...	50— 770;	average :	250
Speaking quietly 100 words ...	0— 160;	average :	63

If one assumes 10,000 words to be spoken in a day, the daily droplet output due to speaking might be estimated at about 10,000 droplets; this is no more than the output of a single violent cough and only a hundredth part of the output of a sneeze.

Between 95 per cent. and 99 per cent. of the droplets were small enough to remain air-borne as droplet-nuclei. The sizes of 21,000 droplet-nuclei were measured by use of a microscope with a micrometer eyepiece. The nuclei varied

in diameter from about $\frac{1}{4}$ to 42 microns, 97 per cent. having diameters between $\frac{1}{2}$ and 12 microns, and the commonest diameters lying between 1 and 2 microns. The size of droplet-nuclei is of interest because it determines the time for which they remain air-borne and also whether on inhalation they are deposited in the upper respiratory tract (those over 5 microns in diameter) or in the lungs (some of those less than 5 microns in diameter). By sampling the air at different times subsequent to sneezing, it was found that the larger nuclei, those over 5 microns in diameter, settled out of the air within an hour, while some of the smaller nuclei remained air-borne for several hours, on one occasion for at least 30 hours ; very few of these smaller nuclei contained bacteria.

The proportion of droplets of each size which will contain pathogenic organisms is determined by the size of the droplets and the number of the organisms present in the respiratory secretions atomised. According to Hamburger the saliva of persons with hæmolytic streptococcal throat infection contains usually between 1,000 and 1,000,000 hæmolytic streptococci per ml. On the basis of the droplet size-distributions observed and on the assumption that 30,000 pathogenic organisms were present in 1 ml. of respiratory secretion, it was calculated that of 1,000,000 droplets expelled by a sneeze, only 3,100 would contain pathogenic organisms and only 150 of these would be small enough to remain air-borne as droplet-nuclei. Even if as many as 1,000,000 pathogenic organisms are present per ml. of secretion, not more than 1 per cent. of the droplets are likely to give rise to infected droplet-nuclei. In fact, only a small proportion of the respiratory droplets are likely to be infected, and most of these will be too large to remain air-borne as droplet-nuclei.

This conclusion was confirmed by direct observations of the droplet-spray produced by infected persons. Droplets containing hæmolytic streptococci were found to be expelled during a series of six coughs by only 39 out of 87 scarlet fever patients and throat carriers ; 1,109 infected droplets were expelled during 522 coughs—that is, only two infected droplets per cough. Droplets containing diphtheria bacilli were expelled during a series of six coughs by only 10 out of 50 patients with faucial diphtheria ; 48 infected droplets were expelled during 300 coughs. Droplets containing tubercle bacilli were expelled during a series of six coughs by only 10 out of 20 patients with open pulmonary tuberculosis ; 36 infected droplets were recovered during 120 coughs.

Dust liberated from the clothing of carriers, their handkerchiefs, towels and bedding, and the floors of their rooms, was found to be a much more prolific source of hæmolytic streptococci than was droplet-spray. For instance, in a small room (14 feet by 14 feet by 10 feet) 4 carriers raised the air-infection from 0·4 to 1·8 hæmolytic streptococcal particles per cu. ft. by walking continuously around, and then to about 200 infected particles per cu. ft. by shaking their jackets, handkerchiefs and towels. Assuming air-infection to be uniform throughout the room, each carrier must have liberated in a 10 minute period at least 100,000 dust-particles bearing hæmolytic streptococci, an output equivalent to the total infected droplet output of 50,000 coughs, such as those in the series recorded above.

Observations were made of the bacterial content of the air in a dormitory, a schoolroom, a recreation room and a cinema hall of a residential training establishment during an epidemic of hæmolytic streptococcal throat infection. The average figures obtained for these four rooms during their occupation were, respectively,

0·22, 0·63, 0·38 and 0·33 hæmolytic streptococcal particles per cu. ft. of air. A person occupying these premises for 24 hours would have inhaled about 100 infected particles. The amount of air infection varied according to the amount of activity and movement; maximum air-infection was recorded at the time of entrance and exit of occupants, when they retired to bed and when they arose again, and during sweeping of the floor. Within 15 to 30 minutes after cessation of such activities, air-infection fell to a low level. In the dormitory, air-infection was at a minimum during the time in which the occupants were asleep in bed; only 2 infected particles were recovered from 120 cu. ft. of air sampled during this night period. The apparent dependence of air-infection upon movement and activity accords with the view that it is produced mainly by the stirring up of infected dust. One must fear not only the coughs and sneezes of an infected person, but his very presence, his movements and his environment.

(*J. P. Duguid*).

BIOLOGICAL TYPES OF B. DIPHTHERIÆ IN EDINBURGH.

In Edinburgh the years 1936 and 1937 witnessed a rapid rise in the proportion of cases of diphtheria caused by Type III, the so-called *gravis* type of *B. diphtheriæ*. This increase, from 10 per cent. in 1936 to approximately 60 per cent. in 1938, coupled with some relative increase in severe and moderately severe cases, suggested the possibility of an impending epidemic as serious as those previously associated with the *gravis* type in Leeds and elsewhere. No such epidemic, however, occurred.

At the beginning of the war, the survey of *B. diphtheriæ* types was interrupted and only a few strains were studied. Since January 1942, however, an attempt has been made to isolate and type the organism in every case of diphtheria admitted to the City Hospital for Infectious Diseases. The investigation has been carried ont in close co-operation with the Medical Superintendent of the City Hospital and his staff who have supplied a clinical assessment of the severity of each case.

Some of the principal findings are shown in the accompanying graph and the following points may be noted :—

1. The relative incidence of the different biological types of *B. diphtheriæ* is subject to change over a period of years. This phenomenon has been observed not only in Edinburgh but wherever the types of *B. diphtheriæ* have been studied : and it has also been found that, at any one time, the proportion of types may be very different even in adjacent areas.

2. After the rapid rise in incidence in 1936-37, Type III (*gravis*) reached an average of 70 per cent. for the first half of 1939 (80 per cent. for the second quarter) and still averaged 75 per cent. for the year 1942. During the early war years a sufficient number of strains was typed to indicate that this starch-fermenting *gravis* type was certainly predominant. Since 1942 the relative incidence has declined until in 1946 it was just over 45 per cent.

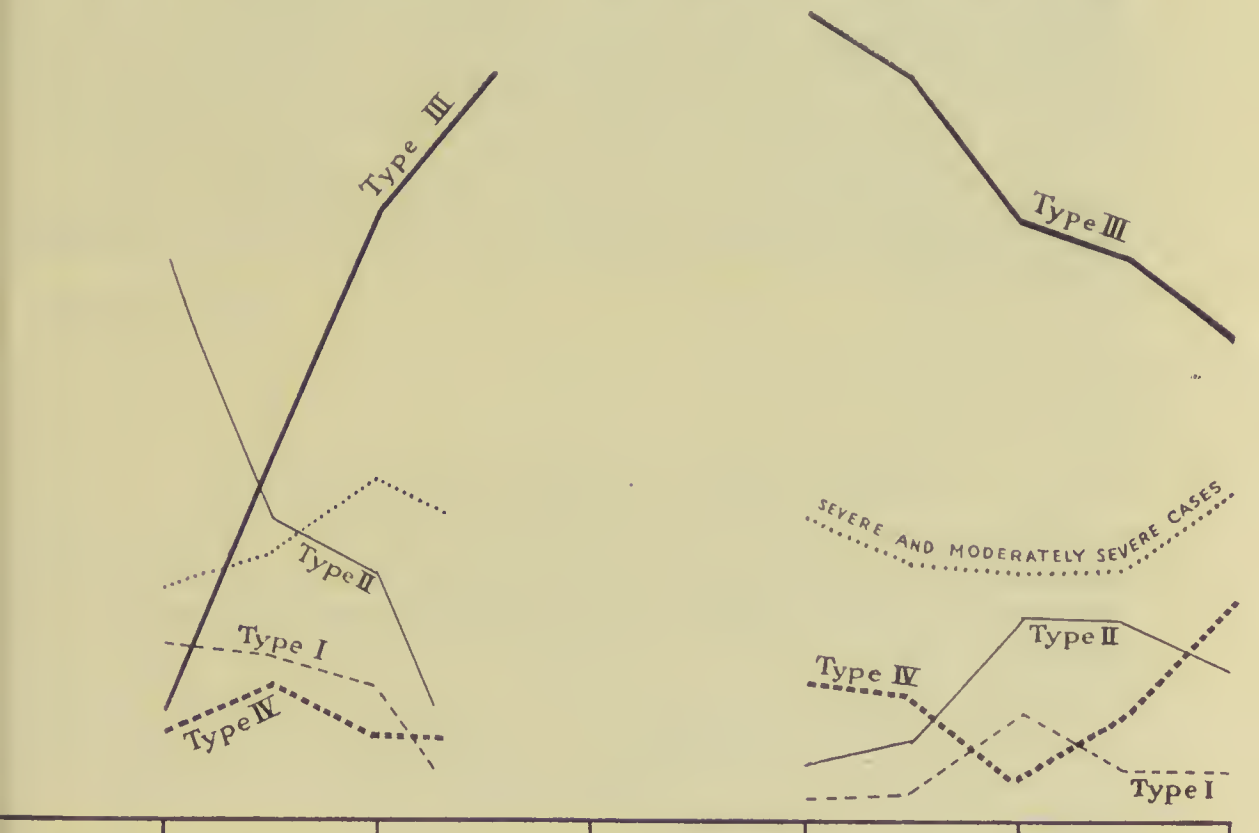
3. Type II (*intermedius*) after its rapid decline before the war, has not since caused more than 20 per cent. of cases; Type I (*mitis*) has a continued low incidence; Type IV (a non-starch-fermenting type with the other characters of the *gravis* variety) is now increasing in prevalence. This last type is apparently in some biological sense complementary to Type III; it appeared in Edinburgh as a forerunner of Type III in 1934-35, and is increasing in relative frequency as Type III declines. It may be mentioned here that as the incidence of the different

biological types tends to equalise, the strains become more and more atypical and are often observed to depart from standard in one or more characters.

4. The total number of cases in the series has fallen remarkably since 1942, and in 1946 reached a very low level. These figures are in accord with the diphtheria notifications for these years.

5. The proportion of cases assessed as "severe" and "moderately severe" has not appreciably decreased and has shown a tendency to rise in 1946. The large majority of these serious cases occur in the unimmunised, *e.g.*, 16 of the 17 "severe" cases in 1946.

Percentage incidence of cases due to *B. diphtheriæ* Types I., II., III. and IV.; and combined percentage of "severe" and "moderately severe" cases



Dec.	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Total Cases		639	501	106*			502	480	371	447	202

* 6 months only.

The chief epidemiological interest of these observations seems to lie in two facts: that a predominance of *B. diphtheriæ* Type III in other areas is known to have been associated with severe epidemics and high mortality, and that active immunisation on a large scale began in Scotland in 1941. In 1940, before the immunisation campaign and when 80 per cent. of cases in Edinburgh were due to Type III, notifications of the disease rose to a high level, and the case mortality rate was higher than for some years. On the other hand, in 1941, though Type III was still predominant, notifications fell rapidly in Edinburgh and failed to show the usual rise in the last quarter of the year. This downward trend in notifications has continued, concurrently with a decline in Type III. It seems reasonable to

suppose that there must be some inter-relationship between the biologieal characters and virulenee of an infecting organism and the state of resistance of the host, both the individual and the eommunity. In all probability active immunisation has been a powerful factor in the present position ; and it may be that the artificially enhaneed resistanee of the eommunity has modified the virulence of the predominant Type III *B. diphtheriæ* which, in turn, has contributed still further to the decline of the disease. The decline in Edinburgh, and in Scotland generally, is all the more remarkable in view of the widespread epidemics which swept across Europe in the later war years and reached overwhelming proportions in Norway and Holland, countries where the pre-war incidence of diphtheria was negligible in eomparison with that of Seotland, and the immunity of their population low. In addition to our geographical position, the comparatively immune state of our population, largely no doubt the result of artifieial immunisation but also the result of endemie infection, has stood us in good stead. Observations over a long period of years of the many biologieal and soeial factors involved will be necessary before the epidemie behaviour of diphtheria can be foreeast with any confidence.

If the upward trend of the severer type of case is maintained it will be an interesting eommentary on the danger to the susceptible individual in a relatively immune community, and would emphasise the need for the effeetive immunisation of every ehild.

(*H. A. Wright.*)

PHAGE TYPING OF STAPHYLOCOCCUS AUREUS.

The division of eertain baeterial spccies into types has been of great value in the study of the epidemiology of infections produced by these organisms. It has been partieularly useful in the study of the spread of streptoeoccal and pneumocoecal infeetions in communities in which a number of different types may be prevalent.

In the past typing of organisms has been carried out mainly by serologieal methods, but recently methods have been developed for the typing of certain species by a technique based on the differing sensitivity of different strains to the lytie aetion of highly speeific baeteriophages.

It has always been difficult to study the spread of staphylococeal infections owing to the ubiquity of the staphylococcus and the diffieulties involved in typing by serological methods. Fisk (1942) was able, however, to show that strains of *Staphylococcus aureus* are commonly " earriers " of bacteriophage. Bacteriophages isolated from such sourees were capable of lysing certain strains of *S. aureus* and differed from one another in the particular strains which they were able to lyse. This variable and selective aetion of phages isolated from " carrier " strains of staphylococci made it possible to show the existence of a great number of types of *S. aureus* differing from one another according to their sensitivity to different phages. One difficulty, however, was that a considerable proportion of strains were resistant to all the phages available. Wilson and Atkinson (1945) have developed Fisk's original methods and established routine methods for the phage typing of *S. aureus*. These methods have already proved valuable in public health work in determining the probable source of outbreaks of staphylococcal infection.

Staphylococcal infections are commonly endemic and sometimes epidemic in maternity institutions. Symptomless carriage of the organisms in the nose is practically universal among the infants by the time of their discharge. Mild infections, such as conjunctivitis and cutaneous pustules, are not uncommon, and sometimes serious cases of impetigo neonatorum, or other severe staphylococcal lesions may occur. Among the mothers *S. aureus* may produce mastitis often complicated by abscess formation. Uterine infection may also occur, or skin infection following contact with an infant suffering from a skin lesion. Approximately 50 per cent. of nurses may be expected to be nasal carriers of pathogenic staphylococci and skin infections may occur, particularly of the fingers, at times when infection is prevalent among the infants.

To assist in determining the routes by which these infections are spread phage typing of staphylococci has been carried out in groups of infants and nurses at intervals during the last two years in maternity units in Edinburgh. In none of these investigations has it been possible to make a full study of the mode of spread of the organism, but typing has given certain information of interest.

It has been found that at any one time in a neonatal nursery a number of different types of *S. aureus* are prevalent among the infants and that the incidence of these types may change rapidly as new infants enter the nursery and others leave. The nurses also carry a number of different types of *S. aureus* which are mainly different from the strains carried by the infants, but some nurses may carry the same types as certain of the infants. The infants usually acquire these staphylococci within a few days of birth and the strain acquired persists. Unless a nursery is studied carefully over a period it may not be possible to determine whether a nurse carrying the same type as some of the infants does so because she has become infected from them or whether she has been responsible for introducing the strain into the nursery in the first place. Types found among the infants and not present among the nurses may have been originally introduced by previous nurses or by infection of the infants from mothers or medical staff. Once introduced into the nursery the strains may persist, passed from infant to infant, and possibly maintained for periods in the dust and on various articles. Infection of the infants may take place from these sources, but to what extent is unknown.

Phage typing of staphylococci has also been used in tracing the source of outbreaks of staphylococcal food poisoning. It has proved possible to type the staphylococcus isolated from the patients and from the food and then to show the presence of the same type of staphylococcus in the nose of an individual responsible for the handling of the food. Phage typing has further been of assistance in determining the source of infection in wounds infected with *S. aureus*. In many cases it has been found that the strain isolated from the wound has been of the same type as staphylococci isolated from the skin and nose of the patient. Staphylococcal infection of wounds, therefore, can be autogenous. This has also been shown to occur in staphylococcal osteomyelitis where the type isolated from the lesion has usually been found to be the same type as that isolated from the nose.

(*G. B. Ludlam.*)

References—

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A NOTE ON SOME OF THE METHODS USED IN BACTERIOLOGICAL DIAGNOSIS.

In bacteriological laboratory work new methods are constantly being explored, either for the purpose of improving diagnostic results, for the saving of time and labour, or to keep pace with developments of modern therapy. In this short note a brief outline is given of some of the methods in use in this laboratory.

Tuberculosis.—The volume of specimens examined for the tubercle bacillus increases yearly, and the methods used require constant critical review, both as regards results and the time and labour involved. In this laboratory, where most of the specimens of sputum are cultured for the tubercle bacillus, direct microscopic examination, unless required for an immediate diagnosis, is not made; instead, the concentrated deposit used for inoculating culture media is examined microscopically. The advantages of such concentrated preparations are (1) the higher percentage of positive results, (2) the shorter time required for the microscopic examination. Cultivation without doubt gives very satisfactory results, being less expensive and more expeditious than animal inoculation: but even so, the results are not obtainable until three to four weeks have elapsed.

Diphtheria.—From time to time different media have been introduced for the detection and isolation of the diphtheria bacillus. In the past the main standby has been Löffler's serum medium, and, provided certain conditions are fulfilled, a diagnostic report can nearly always be made on microscopical examination of a Löffler's serum culture. However, if this medium alone were relied on there would always be a certain percentage error, dependent upon the quality of the media, the experience of the worker and the prevalent type of diphtheria bacillus. In many laboratories now, it is the practice to use plate cultivation on a blood-tellurite medium in parallel with culture on Löffler's serum. The tellurite medium used in this laboratory is Hoyle's modification of Neill's medium. This combination means that one culture acts as a check on the other, and that the colonies of the different biological types of diphtheria bacillus can be recognised, and also distinguished with a fair degree of certainty from those of diphtheroid bacilli and other organisms.

Enteric Fever and Dysentery.—In the diagnosis of these infections by means of the isolation of the specific organisms from the fæces, it is customary to use more than one medium. Those used most frequently are (1) MacConkey's agar, (2) Wilson and Blair's bismuth sulphite agar, (3) desoxycholate citrate agar, and (4) the fluid enrichment media: (*a*) brilliant green peptone water, (*b*) tetrathionate broth, and (*c*) sodium selenite medium. The action of selective media of this nature is by inhibiting the growth of other fæcal organisms, particularly *B. coli*, while permitting the growth of the enteric or dysentery bacilli.

Hynes' modification of Leifson's desoxycholate medium has been used in this laboratory for some time past with good results. Unlike other selective media, the dysentery organisms grow well on it, and there is a marked inhibitory effect on the coliform bacilli so that it is possible to inoculate plates more heavily, thereby increasing the chance of isolating the pathogenic organisms, particularly dysentery bacilli, *Salmonella* food poisoning organisms and *B. paratyphosus B*. The sodium

selenite medium, also developed by Leifson, is mainly intended for the isolation of typhoid and paratyphoid bacilli from fæces and urine. Up to the present it has only been possible to compare it in a small series of cases of *B. paratyphosus B* infection. In this series it proved definitely superior to the other enrichment media. Further opportunities for comparison are awaited.

Haemolytic Streptococci.—The detection and isolation of hæmolytic streptococci in mixed infections frequently presents difficulties, in that the streptococci are overgrown by other organisms. This can be overcome by employing a selective medium—crystal violet blood agar, the crystal violet being inhibitory to most organisms other than streptococci. It is frequently possible by this method to obtain a pure growth of hæmolytic streptococci from mixed infections. It is now used routinely in the examination of throat swabs for these organisms.

Staphylococci.—The coagulase test, with either human or rabbit plasma, has now generally been accepted as an indication of the pathogenicity of strains of staphylococci, and has proved of considerable practical value in diagnostic work in excluding non-pathogenic staphylococci which are so frequently encountered in specimens and which may be of no diagnostic significance. At the same time it serves to confirm the significance of a pathogenic staphylococcus found in diagnostic work.

Serological diagnosis of Syphilis.—As a routine, two or more different tests are carried out on each serum submitted for examination. In this laboratory the Wassermann reaction and the syphilis flocculation reaction are used in parallel. Since 1943 a further test, the "Kahn verification test," has been used, and it is of proved value in assessing doubtful results. With this method it is frequently possible to determine whether such results are significant of syphilitic infection or are non-specific. However, in a small number of cases the results of the verification test have to be classified as inconclusive.

Tests in connection with sulphonamide and penicillin therapy.—The extensive use of penicillin and the sulphonamide group of drugs has meant the introduction of new laboratory tests, *e.g.*, the assessment of the sensitivity of particular bacterial strains to these substances, the biological assay of solutions of penicillin, and the estimation of penicillin activity in blood and body fluids. These bacteriological tests have become necessary ancillaries to such forms of therapy if treatment is to be carried out on an exact and rational basis. Sulphonamide therapy has also necessitated a modification of the technique of routine blood culture, namely, the incorporation in the medium of para-amino-benzoic acid to annul any bacteriostatic action of the drug present in the blood sample used for culture. It may be noted here that by virtue of its selective antibacterial action towards Gram-positive bacteria, penicillin incorporated in media used for the isolation of *Bacillus pertussis* has greatly enhanced the value of the cultivation test in the diagnosis of whooping cough and is used as a matter of routine for the purpose.

(*J. C. J. Ives*).

MATERNITY AND CHILD WELFARE.

REPORT BY THE MATERNITY AND CHILD WELFARE MEDICAL OFFICER.

In this report are noted the various activities of the Maternity and Child Welfare Department during the year 1946. The Tables referred to in the text will be found at the end of the Report.

Ante-Natal Supervision (Table 1).—The ante-natal clinics are all under the clinical charge of members of the staffs of the maternity hospitals in the city, the clinical supervision of the expectant mother by skilled and practising obstetricians being thus assured.

In addition to the medical supervision carried out at the ante-natal clinics, home visitation is undertaken by the Health Visitors, who are able to give useful and friendly advice, especially in the case of first pregnancies, and to give information regarding all the facilities now available to the expectant mother. Health Visitors are thus also in a position to appreciate to what extent the instruction and advice received at the clinic have been understood and given effect to.

During the past year 1,110 clinics were held at 14 ante-natal centres. The total attendances at all these centres was 68,095, an increase of 18,172 on the previous year. This is the largest yearly increase of attendances ever noted, and reflects the great increase in the number of births compared with previous years. In 1946 the notified births in the city totalled 11,883, compared with 9,397 in 1945, showing an increase of nearly 2,500 births. Of the 68,095 total attendances, 10,433 attended for the first time, compared with 7,646 for 1945. There were also 57,662 re-visits, compared with 42,277 for 1945. The number of special ante-natal supervisory visits in the homes was 3,639, compared with 2,715 in 1945.

The great increase in the number of births is having its repercussion in the totally inadequate facilities for maternity accommodation. The existing number of beds available for institutional confinements, already taxed to capacity in recent years, became in the past year an acute problem. The bed accommodation could in certain institutions be increased if sufficient staff could be recruited to attend to the care of the patients; in fact, it is the lack of staff which is the greatest problem, necessitating the very early booking of cases for the available beds, and the unfortunate and distressing fact remains that many women are forced to have their confinements in houses which for various reasons are most unsuitable for the purpose. The Corporation in such cases does all it can to minimise the inevitable inconveniences by offering under its Domiciliary Maternity Service Scheme attendance of doctors and midwives to look after the women, and, if need be, a home help to look after the house and family during the mother's temporary incapacity.

Post-Natal Supervision (Table 2).—These clinics serve a very useful purpose in the prevention of subsequent disease. The early detection of any abnormality resulting from a recent confinement and its immediate care is bound to have a beneficial effect on the subsequent health of the mother, and

may even be the means of preventing a catastrophe at a succeeding confinement. This is a matter which calls for team-work between health visitor, general practitioner and hospital. The importance of post-natal supervision has been officially recognised by being included as part of the responsibilities to be undertaken by the general practitioner on the City's panel of doctors in connection with the Domiciliary Maternity Service.

During the past year 154 post-natal clinics were held, with a total attendance of 6,203. Special home visits in connection with these totalled 8,273.

Midwives Acts (Table 3).—The number of certified midwives who intimated to the Local Authority their intention to practise in the district was 13, the same as for 1945. It should be noted, however, that most of these are associated with the extern practice of maternity hospitals and institutions, one only practising as a midwife on her own account. Only 65 confinements were thus attended to in 1946, a number very similar to that for the previous year (57). It will thus be seen that, as far as Edinburgh is concerned, the private practising midwife has all but disappeared. This fact was becoming obvious at the time the Maternity Services (Scotland) Act 1937 came into force. Two midwives who between them had the largest practices gave up and surrendered their Certificates, since when no one has replaced them. In 1928 there were 13 locally registered midwives in the city, who attended 455 confinements, compared with 279 in 1937 and, as already stated, only 65 for 1946.

The Edinburgh Domiciliary Midwifery Scheme under the Maternity Services (Scotland) Act 1937 was approved by the Department of Health in July, 1943. There were 1,745 completed cases during this present year out of 2,400 applications, not including 128 cases which were transferred to hospital. These figures show a large increase on the previous year, when 1,175 completed cases were dealt with out of 1,338 applications, excluding 129 cases transferred to hospital and 38 cancellations for various reasons. The steady increase in the development of the scheme indicates general approval and appreciation of the work. As is well known, any woman who desires to have her confinement in her own home is entitled on application to receive from the Corporation the services of a doctor and midwife and, when required, a specialist obstetrician, as well as a specialist anaesthetist, for an inclusive fee of £4 10s., or less if unable to meet this maximum charge. In July 1943 the Corporation appointed Miss Sheila I. McIntosh as its first whole-time almoner in connection with the Domiciliary Midwifery Scheme, and later, in August 1945, two additional almoners were appointed to assist Miss McIntosh when her duties were enlarged to deal with hospital as well as domiciliary cases. In October 1943 the Corporation appointed Miss Christina A. Matheson as whole-time supervisor of midwives in connection with the scheme.

Since 1st January 1939 maternity homes have ceased to be registered under Part II of the Midwives and Maternity Homes (Scotland) Act 1927, which has been repealed and replaced by the Nursing Homes (Scotland) Act 1938. The number of nursing homes registered in the city is 49. Of these, 8 were registered for maternity work only. Of the remaining 41 eight have maternity sections, bringing up the total number of maternity beds in nursing

homes to 137. The number of births which took place in these homes during the year was 1,759. Eight homes cancelled registration during the year, and there were seven new ones registered. Both hospitals and nursing homes have more applicants than can be dealt with, mainly due to the lack of staff and, to a lesser extent, to the lack of accommodation.

Puerperal Fever and Pyrexia (Tables 4 to 9).—In Scotland puerperal fever and puerperal pyrexia are still both notifiable. This is in contrast to England, where puerperal fever has been omitted from the definition of notifiable diseases in the English Public Health Act, and was also omitted, as from the 1st October 1939, from the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations 1926. It was to be understood that from that date the obligation imposed by Regulations to notify cases of puerperal pyrexia would include the obligation to notify conditions previously notifiable as puerperal fever.

The total number of notifications of puerperal pyrexia during 1946 was 49. Of these, 25 developed later into cases of puerperal fever. The total number of cases of puerperal fever was 73, and of these 13 were proved not to be true cases of the disease, leaving a balance of 60 definite cases. Taken together, there were during 1946, 85 confirmed cases of puerperal fever. Of these, puerperal fever accounted for one death and puerperal pyrexia for none. The comparable figures for 1938 were 93 confirmed cases of puerperal fever with 11 deaths, and in addition one death from puerperal pyrexia. It should be noted that the above figures apply to Edinburgh citizens only and not to out of town cases delivered in city institutions.

Home Helps.—For the past few years the lack of institutional accommodation for mothers during their confinement has forced many to be attended to in their own homes, often under circumstances totally unsuitable for the purpose and without anyone to help them during their incapacity. To meet this need a service of home helps was started on 30th April 1945. This service has in the short period of its existence already proved its value to the community and many are the grateful letters received from those who have taken advantage of it. The sending of a stranger into a home temporarily to replace the mother calls for very careful selection of personnel. Applicants desiring to enter this service are not approved unless they conform to a high standard of capability and suitability for this special work, and consequently recruitment has been slow and it has not always been possible to satisfy the demands for home helps. There is now an establishment of 20 whole-time home helps.

During the year 475 applications were made for this service, and 221 were supplied. The duration of help given is usually not more than three to four weeks, and the charge to be made is settled after a friendly talk with the almoner when payment of the maximum weekly charge of £3 4s. proves a hardship. Where from time to time a home help is not needed for a maternity case, she is sent where help is required during any temporary illness in the home. The following extracts from conditions of service for home helps will give a general impression of what is expected of them. Briefly their duties are such as the mother herself would undertake in the home, and in no way are home helps meant to act as substitutes for ordinary household domestics.

The home help works a standard 48-hours week, and is paid at the rates laid down by the Hetherington Committee for daily and part-time workers. As already stated, her duties include work usually undertaken by the mother such as cleaning, cooking, washing, care of children, and seeing them to school if necessary. When required she may have to clean the patient's room and serve her meals, see to the husband's meals, mending, marketing, and looking after the household generally. She does not encroach upon the work of the midwife, nurse or health visitor, nor must she ever discuss with others the family affairs or domestic conditions of any household in which she is employed.

Maternal Deaths (Tables 10 to 16).—Up to the year 1939 in Scotland, stillbirths did not require to be registered, so that maternal mortality rates were based upon live births only, unlike the English statistics which since June 1930 have been calculated from the total births, both live and stillborn. Since 1939, however, when the Registration of Stillbirths (Scotland) Act was passed, the figures for maternal mortality for both countries have become comparable, and all such rates in this report are calculated in this way.

Recent years have shown a marked decline in the maternal mortality rate for the city. The rate for the past year was 1·6 per 1,000 live and still births, compared with 5·0 for 1939, based on death certification to the Registrar General. Table 14 shows two sets of figures from 1939 for each year up to the present time; the one set is calculated from the Registrar General's classification based on death certificates, and the other is based on figures arrived at after clinical investigation. It will be seen that the latter method gives slightly higher figures without, however, showing any great divergence in their downward tendency from year to year. It is significant to note that only one death was attributed to septicaemia, compared with 16 in 1938—possibly a reflection of the tendency in the present day to make more and more use of chemical agents in combating germ infections.

There were 21 maternal deaths during the year, compared with 43 in 1939. This year's figures, like those of previous years, show an ever-increasing tendency for most of the maternal deaths to occur in institutions. This, no doubt, is due to the fact that more and more women are insisting on having their confinements elsewhere than in their own homes, many of which are not suitable by reason of overcrowding, house shortage, or otherwise.

Births (Tables 17 to 21).—The number of births registered was 11,516, compared with 9,104 for 1945, showing an increase of 2,412 births in the year under report. After correction for transfers the numbers were 9,350 and 7,362 respectively, still showing an increase of 1,988 births. Of these 9,350 births, 4,844 were males and 4,506 were females. The birth-rate for the whole city was 19·5, compared with 15·4 for 1945. Up to the present time the rate has remained fairly constant between 15 and 16 for the past ten years or more. The rate (19·5) for 1946 is the lowest of those returned for the eight large towns in Scotland and slightly lower than that for the rest of Scotland.

The number of notified births was 11,883, compared with 9,397 in 1945. Of these, 971 or 8·1 per cent. were noted as premature, compared with 711 or 7·6 per cent. in 1945, and 396 were notified as stillborn, compared with 310 in 1945.

For a long period of years statistics have shown a persistent, though gradual, decreasing number of births attended by private doctors, accompanied by an increasing number attended in hospitals and nursing homes. The number of births attended by locally registered midwives is becoming less and less from year to year. Thus in 1938 the number attended by them was 263 or 2·9 per cent. of all notified births, compared with 65 or 0·54 per cent. during the past year. Similarly the same tendency is shown in the number of births attended at home by medical students and pupil midwives, which in 1940 was 1,696 or 20·7 per cent. of the total notifications, compared with the year 1945 when the corresponding figures were 1,112 and 11·8 per cent. respectively. During the past year the figures are more encouraging, being 1,844 and 15·5 per cent. respectively. Much will depend upon these numbers increasing even more if sufficient cases are to be available for training the larger number of medical students and pupil midwives now entering these professions.

Table 20 shows the number of births which have taken place in the Corporation institutions since 1929, when as the result of the passing of the Local Government Act of 1929, responsibility for the hospital treatment of medical, surgical and maternity patients was assumed. The greatest increase is shown in the figures for the Western General Hospital Maternity Unit. In 1932 only 59 confinements took place there, compared with 1,461 during the past year. The total number of confinements taking place in Corporation hospitals during the past year was 1,897, compared with 1,486 in 1945. In addition 1,745 confinements were conducted in the patients' own homes, compared with 1,175 in 1945.

The illegitimate births showed an increased percentage rate during the three years 1943-45, followed by a decrease in 1946, especially during the last six months of the year. These figures show a similar tendency to those which occurred after the First Great War.

Ophthalmia Neonatorum (Table 22).—The number of notifications received during the year was 36, compared with 65 in the previous year and 92 in 1936. These figures show a definite decrease in the incidence of notified cases. No doubt many infants having only what is generally described as "slight sticky eyes" are not notified to the local authority, otherwise the notifications received would be largely in excess of the above figures. That such is the case was shown when in 1937, at the special request of the then Medical Officer of Health, all cases of eye discharge were to be notified, however slight and irrespective of the skilled attention and treatment being given. With regard to the 36 cases notified during the past year, none were stated to show the presence of the gonococcus, nor has there been any impairment or loss of sight reported in any infant. No cases occurred in the practice of midwives. As usual, most of the cases reported were treated in hospital.

Infant Deaths (Tables 23 to 31).—For many years there has been a progressive diminution in the infant mortality rate for the city, as well as in the number of deaths under five years of age. The actual number of deaths during 1946 of infants under one year was 490, the infant mortality rate being 52 per 1,000 live births, compared with 50 for the year 1945. The neonatal

mortality rate, *i.e.* deaths occurring during the first four weeks of life, was 26 per 1,000 births, compared with 25 for 1945. The neonatal deaths—244 in number—account for 50 per cent. of the total deaths under one year. During the first ten days of life—the usual period during which the mother and her infant presumably should benefit from continuous supervision after her confinement—there were 196 deaths, accounting for 40 per cent. of the total deaths under one year, and 179 or 36 per cent. of these occurred during the first week of life. These figures clearly indicate where further investigation and preventive measures are called for in order to make any great improvement in the existing infant mortality rates, and one looks forward with confidence to the future. The need for close co-operation between obstetrician and paediatrician in obstetric units is now fully recognised as a valuable development in the attempt to save infant lives, and it has become an established practice to appoint paediatricians to take clinical charge of the nurseries in maternity hospitals. It only now remains to go a step further and close the obvious gap in this essential service. This can be done by the appointment of paediatricians to ante-natal clinics where, with the co-operation of the obstetrician, the examination and supervision of the unborn child must surely lead to great developments in foetal diagnosis and treatment. Already there are signs of interesting and helpful developments along these lines, and recent investigation has shown a close relationship between foetal congenital abnormalities and infectious disease and infections in the early months of pregnancy.

On analysing the mortality statistics for the city it is noted that prematurity, gastro-enteritis, and pneumonia are the three main contributory factors to the death rate in early life. Prematurity, based on death certification, accounted for 102 or 21 per cent. of the 490 deaths under one year, and of these, 100 occurred in the first four weeks of life—a neonatal mortality rate of 10·7, and 93 in the first week of life.

The incidence of gastro-enteritis has much increased in the past year, and several epidemics have been noted and reported upon in the maternity hospitals and nurseries in various parts of the country. The Edinburgh figures show that it occurs less frequently during the neonatal period (the neonatal mortality rate being 0·6 per 1,000 births) than in the later months of the year. During the year there were 104 deaths from this cause. Of these, 9 occurred between one and two years of age, and 95 under one year, of whom 6 died in the neonatal period. All deaths except 7 took place in hospitals. The following figures show these deaths according to monthly incidence and age :—

January	6	
February	8	21
March	7	
April	9	
May	12	29
June	8	
July	10	
August	5	22
September	7	
October	9	
November	11	32
December	12	
		104

Under 1 Month	6
1-2 months	10
2-3 ,,	21
3-4 ,,	14
4-5 ,,	14
5-6 ,,	8
6-9 ,,	12
9-12 ,,	10
1-2 years	9
	104

Much investigation and research work is being carried on in various parts of the country where epidemics of this condition have occurred, and it is to be hoped that these will soon lead to a better understanding of the causative factors, which may show the way to preventive measures and more certain cures.

Bronchitis and pneumonia form the third main contributory factor adversely affecting the mortality statistics. During the year the total number of deaths from these causes under five years was 96 (13 from bronchitis and 83 from pneumonia), compared with 79 (12 from bronchitis and 67 from pneumonia) in 1945. Of the total for 1946, 86 (11 bronchitis and 75 pneumonia) or 17·5 per cent. occurred during the first year of life, while 32 of these belong to the neonatal period, showing a neonatal mortality rate of 3·4 compared with 11 for 1945. Pneumonia alone, conversely with gastro-enteritis as a cause of death, during the first year of life, showed a greater incidence in the neonatal period, namely 9·2 of a neonatal mortality rate, than in the subsequent months of the year.

Reference to Table 29 shows in five yearly averages a progressive decline in mortality since 1919 in cases of whooping cough, measles, diphtheria, and other infectious diseases of childhood.

The infant mortality rates according to wards in the city are shown in Table 25, where it will be noted that with only one exception the rate has remained on a two-figure basis since 1926-30. In the period 1911-15, for example, out of the 16 wards then existing, the rate in 10 of them was on a three-figure standard, and for the other 6 wards was on a two-figure standard. The highest rate was 155 for St. Giles' ward, and the lowest 53 for Morningside ward, whereas for the past year all rates were on a two-figure basis, the highest being 89 for St. Andrews and the lowest 26 for Broughton. The total rates for all the wards were respectively 114 for 1911-15 and 52 for 1946.

Visits in the Homes (Table 32).—During the year, 8,014 infants under one year were visited in their own homes for purposes of health supervision, as compared with 5,734 during 1945—an increase of 2,280. In all, these infants received 19,006 visits—an increase of 1,077 over the figures for 1945. In addition to these first year visits, 29,848 visits were paid to children between the ages of one and five years. Including first and subsequent visits to children up to five years of age, a grand total of 56,868 visits were paid during the year by members of staff, compared with 53,535 in 1945. In addition, as already noted earlier in this report, 3,639 special visits were paid during the year to expectant mothers, compared with 2,715 such visits in 1945.

The number of cases which a health visitor was considered to be able adequately to supervise was 600—a standard which in the Orr Report was reduced to 500. In addition to home visiting, which should be the most important part of the health visitor's duty, she must attend at her Welfare Centre to supervise her own clinic on certain days of the week, usually in the afternoons.

The members of the Voluntary Health Workers' Association also undertake visitation, at fortnightly intervals, of babies up to the age of fifteen months referred to them for this purpose by the Child Welfare Department. During

the year 326 babies were thus looked after, and where any adverse condition was noticed the Child Welfare Medical Officer's attention was drawn to it. These ladies carry on a very useful work in association with the Child Welfare Department.

Preventive Clinics for Health Supervision (Table 33).—As far as possible mothers are encouraged to report at these clinics at regular intervals for health supervision, and 1,817 clinics were held, at which 5,747 children under one year and 1,036 over one year were seen, making in all a total of 6,783 new cases. The total attendances of these children were respectively 37,869 and 11,763, giving an aggregate of 49,632. Taken together, the attendances of new and return cases reached a total of 56,415.

Curative Clinics (Table 34).—Attendance for minor ailments was made at 1,661 of the total child welfare clinics held during the year; 480 children attended for the first time, and paid 4,249 subsequent visits.

Ultra Violet Ray Clinics (Table 35).—During the year 544 children attended these clinics and made 7,156 attendances. Exposures to the rays of mercury vapour lamps were given to practically all these children, and only a very small fraction of them had exposures to the carbon arc lamps.

Rheumatic Clinics (Table 36).—The table gives an analysis of cases seen at this clinic, which is under the clinical charge of Dr. Douglas Nicholson, one of the senior members of staff at the Royal Hospital for Sick Children, where the clinic is held. This clinic is financed by the Corporation. It will be noted that 39 cases were seen for the first time during the year. They were sent to the clinic either by private doctors (5 cases), through the School Medical Service or Child Welfare Department (17 cases), and hospitals (17 cases). Of the cases recommended through the schools, about one-half proved to be non-rheumatic, and Dr. Nicholson comments that this high ratio of non-rheumatic cases shows that the medical officers are alive to the early manifestations of what may turn out to be rheumatism in the child, and that in any case it brings some incipient rheumatics, or children with nervous instability, early tuberculous infections, and bad posture cases under paediatric supervision at an early age, which has much to commend it. Cases are, as far as possible, followed up in their own homes by the health visitors.

Other Clinics.—Facilities have been made available at the school orthopaedic and school dental clinics for mothers and the " under fives " who require such treatment.

Vaccinations and Immunisations.—The number of vaccinations carried out at the various Child Welfare Clinics was 3,212.

The number of children up to the age of five years who were immunised against diphtheria during the year was 3,951.

An investigation has been planned to estimate the value of giving combined protection against diphtheria and whooping cough, the results of which will be shown in a later report.

Mothercraft Teaching.—The very successful series of health talks given by the health visitors at each Child Welfare Centre every year had to be stopped during the war years but are now about to be resumed, and no doubt the healthy rivalry which existed in the competition between the various centres to secure the Sir Thomas Hutchison Silver Shield will be resumed with the same enthusiasm as in former years. A new development in recent years has been the seconding of four members of the Child Welfare Health Visitors' staff to conduct mothercraft teaching in schools under the Education Committee to senior girls during their last year. This has proved a very successful venture and should be developed and extended to include every pupil in the schools. It is to be hoped that any further development will also include the boys, who could be taught much that would enhance their usefulness in the home. Boys and girls should be taught fathercraft and mothercraft respectively at or about the school leaving age. It is suggested, however, that these terms, which do not appeal as such to the average schoolboy or schoolgirl, might be dropped and both fathercraft and mothercraft be taught under the more general title of housecraft or homecraft.

Requests during the year from the military and Royal Air Force authorities to allow educative visits to be paid to the Child Welfare Nurseries by members of the Women's Auxiliary Air Force and Auxiliary Territorial Service have been granted and have been very much appreciated by the visitors.

Allowances.—An important addition to the allowances intended to promote the welfare of children was the Family Allowances Act 1945, which came into force on 1st August 1946. The allowance is paid by the Government for every family at the rate of 5s. per week in respect of each child in the family other than the eldest.

Up to the end of 1939 it was the practice for milk and dinner tickets to be issued by the Child Welfare Department to expectant and nursing mothers and children under five years who required them on medical grounds. In July 1940 the National Milk Scheme came into operation whereby the distribution became a State responsibility instead of a local one.

Food allowances under rationing schemes are now made to a mother as soon as she is diagnosed as expectant and to children under five years of age. These include one pint of milk per day (free or at a reduced price) and extra allocations of shell eggs, dried eggs, meat and oranges. Expectant mothers and children also receive issues of concentrated orange juice, cod liver oil, and Vitamin A and D tablets. The uptake of these concentrates in Edinburgh has usually been slightly above the average for the south-eastern division of Scotland.

An infant's clothing book is given to expectant mothers before birth, but must not be used until after the infant is born. Dockets to enable them to purchase sheets may be given to expectant mothers who are to be confined in their own homes. The Local Fuel Overseer has power to permit an additional quantity of coal and other heating facilities for expectant mothers.

Nurseries.—During the war period the day nursery service of the Corporation was increased to meet the demand of the Ministry of Labour for

"Tell Us A Story."

An open-air study of Nursery Children.

Evening Dispatch Photo.

"Off For An Airing."

Nursery Children visit the Meadows.

Evening Dispatch Photo.

women in industry. This involved the adaptation of existing nurseries for the greater demand, as well as the opening of new premises in various parts of the city to meet local needs. In February 1942 the first "wartime" nursery, as these institutions were called, was opened, and by April 1944 there were 25 of these nurseries functioning and catering for over 1,200 children. The rapid extension of the service necessitated rapid recruitment of staff, and special training courses were set up in which suitable women received a short theoretical and practical training in nursery work, qualifying for the membership card of the Child Care Reserve. The number of young trainees 16 to 18 years of age was also increased. These were given a two-years' training, and the great majority gained the certificate of the National Society of Children's Nurseries.

These nurseries were open from 7 a.m. to 7 p.m. daily except Sundays, and special provision was made in three of them for 40 places for overnight care where the mother was engaged in shift work.

This scheme, sponsored and financed by the Department of Health for Scotland, ended on the 1st April 1946. At that date the Corporation took over 12 of the nurseries with accommodation for 510 children. Since then a further nursery has been opened at 2 Lauder Road.

The wartime charge of one shilling a day has been continued in all these nurseries, and although waiting lists showed a temporary fall during the course of the year these were beginning to rise again before the end of the year. The figures for the years 1945 and 1946 given below reflect the continued use made of these facilities by the mothers of Edinburgh during the period following the wartime scheme, and once more the demand has become greater than the accommodation available :—

	1945	1946
Number of Nurseries	25	12
Number of Places	1,232	510
Total attendance for the year . . .	230,054	125,567

In July 1942 the Corporation appointed Miss H. M. W. Swanston to act as supervisor of wartime nurseries, and she continues to be responsible for them under peacetime conditions. Members of the Voluntary Health Workers' Association also took a friendly interest in the nurseries by visiting them and in many other ways for which the officials of the Department are most grateful. The children are medically examined just prior to their admission by one or other of the assistant medical officers of the Child Welfare Department to see that they are reasonably healthy, apparently non-infectious, and in a cleanly condition. These doctors also pay regular routine visits of inspection to the nurseries at least once a week and oftener when called upon to do so for special or emergency purposes.

In addition to day nursery facilities, four other homes at Victoria Park House, Willowbrae Children's Home, Stockbridge and Viewforth Nurseries provide residential accommodation.

(1) **Victoria Park Home** is for the admission of infants and pre-school age children who are delicate and not thriving satisfactorily though not requiring hospital treatment. Such children frequently require to remain in the Home for several months at a time. The staff consists of a Matron and Sister assisted

by trainees studying for the National Nursery Nurses' Certificate. There is accommodation for 20 inmates. Of the total admissions during the year, 47 were under one year of age and 40 between one and five years.

Number in residence 1st January, 1946	16
Number Admitted during the year	87
Number Discharged during the year	86
Number in Residence 31st December, 1946	17

(2) **Willowbrae Children's Home** admits healthy infants and children for convenience when the mother is ill or in hospital, as well as those suffering from minor ailments. During the year 32 babies under one year were admitted to the Home and 167 children between one and five years of age.

Number in Residence 1st January, 1946	20
Number Admitted during the year	199
Number Discharged during the year	206
Number in Residence 31st December, 1946	13

(3) **Stockbridge Nursery,** which was being used as a wartime day nursery, was not opened as a residential home till the 31st March 1946. Healthy infants and children are admitted to this Home for short periods where the parents by reason of illness or otherwise are unable to look after them. Since the 31st March, 21 infants under one year were admitted and 47 children between one and five years of age.

(4) **Viewforth Nursery** is used for the residential care of infants and children for short periods during the incapacity of their parents. During the year there were admitted 36 infants under one year and 92 between one and five years of age.

In addition to the above residential institutions under the Public Health Department, the Child Welfare Medical Officers undertake the medical care and supervision of the children in the four residential Children's Homes at Canaan Lodge, St. Katharine's Home, Redhall, and Clerwood House, which are administered by the City Social Services Officer.

Toddlers' Playgrounds (Table 37).—The Voluntary Health Workers' Association, working in close liaison with the Child Welfare Department, has as one of its several activities pioneered and made itself responsible for the carrying on of a series of toddlers' playgrounds in various parts of the city. Here children between the ages of 3 and 5 years can attend and be looked after during every school day for a couple of hours from 10 to 12 in the forenoon. Each playground is subsidised to the extent of £50 by the Local Authority and the balance of cost, now in the region of £90 to £100 per annum, is met by voluntary subscriptions.

In February 1942 ten of these toddlers' playgrounds were handed over temporarily to the Local Authority, which adapted them for use as wartime nurseries, details of which have already been given under the heading of "Nurseries." In April 1946 wartime nurseries as such ceased to exist and the local Voluntary Health Workers' Committees once more assumed responsibility for them.

There are at present 19 such toddlers' playgrounds, each under the charge of a superintendent, who receives an honorarium, and who is assisted by voluntary helpers. The toddlers are kept under medical supervision by the medical staff of the Child Welfare Department, who visit them at regular intervals. The number of toddlers on the rolls of attendance during the year was 462 and the average daily attendance 375. Descriptive details of the work carried out at each of these playgrounds will be found in the annual report of their work issued by the Voluntary Health Workers' Association. This can be procured direct from the Secretary, Mrs. Brotherston, M.B., Ch.B., 7 Abbotsford Park, Edinburgh, or from the Maternity and Child Welfare Department, Johnston Terrace, Edinburgh.

Homes for Mothers and Infants.

(1) **The Edinburgh Home for Mothers and Babies at 17 Claremont Park, Leith.**—This Home was evacuated to Glassingall, Dunblane, during the war and has been in abeyance for some time owing to the delay in reconditioning the Home, which had been used for Army purposes. The committee hope to resume their activities early next year.

(2) **Salvation Army Home for Mothers and Infants at Bonnington Bank House, Ferry Road, Leith.**

	Mothers	*Babies*
Number in Residence 1st January, 1946	24	12
Number Admitted during the year	62	56
Number Discharged during the year	66	55
Number in Residence 31st December, 1946	20	13

Average length of stay in the Home, 6 weeks to 3 months.

The Salvation Army authorities propose soon to vacate this Home for larger and more commodious premises where actual confinements can be conducted. At present all the inmates are sent to hospital for confinement and the "lying-in" period.

(3) **Edinburgh Home for Babies at 30 Colinton Road.**

Number in Residence 1st January, 1946	21
Number Admitted during the year	16
Number Discharged during the year	17
Number in Residence 31st December, 1946	20

Average stay in the Home, 2 years.

This Home has associated with it a "Mothercraft Club" where mothers who do not desire to attend the public health clinics can get advice and education upon the simple rules of feeding and of infant hygiene.

(4) **Challenger Lodge, Edinburgh Cripple Aid Society.**—The Home is designed for the care and attention of cripple children who are not confined to bed. The Corporation pays for each school or pre-school child referred for admission.

Number in Residence under five years of age 1st January, 1946	4
Number Admitted during the year	2
Number Discharged during the year	3*
Number in Residence 31st December, 1946	3

Average stay in the Home, long periods of months.

* Including 2 who reached school age.

(5) **The Adoption Home at 3 Forbes Road.**—This Home is carried on by the Scottish Association for the Adoption of Children and financed mainly by voluntary subscriptions. It has accommodation for 16 babies, and the trained staff is assisted by voluntary helpers. Only babies who are awaiting adoption are admitted to the Home.

Number in Residence 1st January, 1946	11
Number Admitted during the year	68
Number Discharged during the year	65
Number in Residence 31st December, 1946	14

Average stay in the Home, 3 to 4 months.

Acknowledgments.—I wish to express my appreciation of the loyal and devoted service of my staff—doctors, health visitors, almoners, administrators and clerical workers. From the figures in this Report it will be apparent that our contacts with the mothers and children of the city, and with the public generally, are on a very wide scale. That the services of the Department are in such heavy demand is, I think, due in part to the amount of human understanding and tact which the staff bring to their work. I would also thank the large number of voluntary workers connected with the Department for their co-operation and help. They help us unstintedly because they desire to contribute to the happiness of mothers and children, and that in itself is a rich reward.

TABLE 1.—ANTE-NATAL CLINICS.

CENTRE.	Number of Clinics Held.	ATTENDANCES.		
		New Cases.	Old Cases.	Total.
Cowgate	103	380	1,455	1,835
E.I.M.H.	168	2,275	13,831	16,106
Gorgie	70	355	1,865	2,220
Granton	51	274	1,292	1,566
Leith	123	869	4,041	4,910
Marshall Street	51	170	788	958
Murrayburn	49	71	532	603
Niddrie	52	294	1,607	1,901
Portobello	52	365	1,811	2,176
Prestonfield	34	81	368	449
S.M.M.P.	196	4,477	25,052	29,529
Stenhouse	52	194	1,264	1,458
Stockbridge	57	369	1,840	2,209
Torphichen Street	52	259	1,916	2,175
Totals	1,110	10,433	57,662	68,095

TABLE 2.—POST NATAL CLINICS.

CENTRE.	No. of Clinics Held.	ATTENDANCES.
S.M.M.P.	52	3,951
Elsie Inglis Memorial Hosp.	102	1,806
Seen at other Clinics	—	446
Totals	154	6,203

Table 3.—MIDWIVES ACT.

1.		The number of certified midwives who intimated to the Local Authority their intention to practice in the district	13
2.	(*a*)	Total number of births (notified)	11,883
	(*b*)	Total number of deaths of new-born children (within 10 days)	289
	(*c*)	Actual number of births attended by midwives	65
	(*d*)	Deaths of new-born children occurring in the practice of midwives	0
	(*e*)	Number of births not attended by a doctor or midwife	4
3.	(*a*)	Total number of cases of ophthalmia neonatorum	36
	(*b*)	Actual number of ophthalmia neonatorum cases occurring in the practice of midwives	0
	(*c*)	Actual number of cases occurring where confinement not attended by a doctor or midwife	0
4.	(*a*)	Total number of cases of puerperal sepsis	85
	(*b*)	Total number of deaths from puerperal sepsis	1
	(*c*)	Actual number of cases of sepsis in practice of midwives	0
	(*d*)	Actual number of deaths from puerperal sepsis in the practice of midwives	0
	(*e*)	Actual number of cases occurring where confinement not attended by a doctor or midwife	0
5.	(*a*)	Total number of cases of confirmed puerperal pyrexia	24
	(*b*)	Total number of deaths from puerperal pyrexia	0
	(*c*)	Actual number of cases of puerperal pyrexia in the practice of midwives	0
	(*d*)	Actual number of deaths from puerperal pyrexia in the practice of midwives	0
	(*e*)	Actual number of cases occurring where confinement not attended by a doctor or midwife	0
6.	(*a*)	Total number of still-births	396
	(*b*)	Actual number of cases of still-births occurring in the practice of midwives	5
7.		Cases of emergency	4

Cases of emergency in which medical practitioners were called in, under Section 22 of the Act, during 1946 are noted in the following classified list, and number 4.

Forceps delivery	1
Swelling of cervix	1
Miscarriage	1
Sore throat	1
	4

Table 4.—PUERPERAL PYREXIA.

Total number of cases of puerperal pyrexia notified	49
Total number subsequently developing into puerperal fever	25
	24

Table 5.—Puerperal Fever.

Total number of cases of puerperal fever notified		73
Total number of cases notified but not confirmed :—		
Abortion	4	
Scarlet fever	1	
Tonsillitis	1	
Pyelitis	1	
Mastitis	1	
Pyrexia of unknown origin	2	
Inguinal Adenitis	1	
Phlegmasia Alba Dolens	1	
Miliary T.B.	1	
	—	13
	Total	60

Table 6.—RESUMÉ of CONFIRMED CASES of PUERPERAL FEVER.

Notified as puerperal fever	60
Notified as puerperal pyrexia	25
Total	85

Table 7.—DEATHS FROM CONFIRMED CASES of PUERPERAL FEVER.

Number notified as puerperal fever	1
Number notified as puerperal pyrexia	0
Number not notified as puerperal fever or pyrexia	0
Total	1

Table 8.—AGES of PATIENTS suffering from PUERPERAL FEVER.

15 years and under 20 years	6
20 years and under 25 years	17
25 years and under 30 years	25
30 years and under 35 years	21
35 years and under 40 years	13
40 years and over	3
Total	85

Table 9.—AGES at DEATH of PATIENTS suffering from Confirmed PUERPERAL FEVER.

20 years and under 25 years	0
25 years and under 30 years	0
30 years and under 35 years	0
35 years and under 40 years	1
Total	1

Table 10.—MATERNAL DEATHS.

Maternal Deaths, 1942-1946.	1942	1943	1944	1945	1946
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Cases attended by—					
Private doctors and died at home	5·0	6·0	—	5·5	4·7
Private doctors and removed to Institutions	26·5	35·0	45·0	33·5	23·8
Private doctors and died in nursing homes	5·0	—	—	11·0	4·8
Midwives and died at home	—	—	—	—	—
Dispensaries and pupil nurses and removed to Institutions	16·0	6·0	5·0	—	—
Institution nurses and died at home		—	5·0	5·5	—
Attended in Institutions	47·5	53·0	45·0	39·0	66·7
No medical care	—	—	—	5·5	—
Totals	100·0	100·0	100·0	100·0	100·0

Table 11.—MATERNAL DEATHS.

CAUSES OF DEATH :—		
Puerperal sepsis		1
Toxaemia		3
Haemorrhage		6
Embolism		1
Other Conditions :—		
Cæsarian section	1	
Manual removal of placenta	1	
Mitral stenosis	2	
Placenta prævia	1	
Dystocia	1	
Suicide	1	
Ruptured Uterus	1	
Acute cardiac failure	1	
Sub-acute nephritis	1	
	—	10
Total		21

Table 12.—MATERNAL DEATHS, 1939-1946.

Totals.

	1939	1940	1941	1942	1943	1944	1945	1946
Septicæmia	9	1	8	11	3	7	4	1
Toxæmia	7	8	6	2	1	1	4	3
Hæmorrhage	6	5	—	2	3	2	—	6
Embolism	6	4	3	—	—	1	3	1
Other Conditions	15	11	11	4	10	9	7	10
	43	29	28	19	17	20	18	21

Table 13.—MATERNAL DEATHS, 1939-1946.

Rate Per 1000 Total Births. (Live and Still.)

	1939	1940	1941	1942	1943	1944	1945	1946
Septicæmia	1·2	0·1	1·1	1·1	0·4	0·9	0·5	0·1
Toxæmia	0·9	1·1	0·8	0·3	0·1	0·1	0·5	0·3
Hæmorrhage	0·8	0·7	—	0·3	0·4	0·2	—	0·6
Embolism	0·8	0·6	0·4	—	—	0·1	0·4	0·1
Other Conditions	2·0	1·5	1·6	0·5	1·3	1·1	0·9	1·0
	5·7	4·0	3·9	2·5	2·1	2·5	2·4	2·2

Table 14.—MATERNAL MORTALITY.

Rate per 1000 Total Births. (Live and Still.)

Year	Total Births (Live and Still).	Registrar General's Classification.						After Clinical Investigation.					
		Puerperal Sepsis.	Rate per 1,000 Births.	Other Diseases associated with Child-birth.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Puerperal Sepsis.	Rate per 1,000 Births.	Other Diseases associated with Child-birth.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.
1939	7,606	13	1·7	25	3·3	38	5·0	9	1·2	34	4·5	43	5·7
1940	7,218	4	0·6	20	2·7	24	3·3	1	0·1	28	3·9	29	4·0
1941	7,201	9	1·2	12	1·7	21	2·9	8	1·1	20	2·8	28	3·9
1942	7,641	10	1·3	8	1·0	18	2·4	11	1·4	8	1·1	19	2·5
1943	7,895	7	0·9	8	1·0	15	1·9	3	0·4	14	1·8	17	2·1
Aver. 1939-43	7,512	9	1·2	14	1·9	23	3·0	6	0·8	21	2·8	27	3·6
1944	8,131	8	1·0	8	1·0	16	2·0	7	0·9	13	1·6	20	2·5
1945	7,576	6	0·8	12	1·6	18	2·4	4	0·5	14	1·8	18	2·4
1946	9,655	1	0·1	14	1·5	15	1·6	1	0·1	20	2·1	21	2·2

Table 15.—MATERNAL DEATHS.

Maternal Deaths.	Septicæmia	Toxæmia	Haemorrhage	Embolism	Other conditions complicating or associated with Child-birth	Total.
Cases attended by—						
Private doctors and died at home	—	—	1	—	—	1
Private doctors and removed to Institutions	1	—	1	—	3	5
Private doctors and died in nursing homes	—	—	1	—	—	1
Midwives and died at home	—	—	—	—	—	—
Dispensaries and pupil nurses and removed to Institutions.	—	—	—	—	—	—
Institution nurses and died at home	—	—	—	—	—	—
Attended in Institutions.	—	3	3	1	7	14
No medical care	—	—	—	—	—	—
Totals	1	3	6	1	10	21

Table 16.—MATERNAL DEATHS.

Ages at Death :—

25 years and under 30 years	8	38	per cent. of total
30 years and under 35 years	3	14	,, ,,
35 years and under 40 years	6	29	,, ,,
40 years and under 45 years	4	19	,, ,,
Total	21	100	

TABLE 17.—Particulars regarding BIRTHS after necessary corrections have been made for transfers.

	Total Live Births.	Legitimate.	Illegitimate.	Illegitimate Births Per cent. of Live Births.
1st Quarter 1939	1,738	1,633	105	6·0
2nd "	2,056	1,945	111	5·4
3rd "	1,883	1,780	103	5·5
4th "	1,623	1,525	98	6·0
Year 1939	7,300	6,883	417	5·7
1st Quarter 1940	1,804	1,686	118	6·5
2nd "	1,896	1,788	108	5·7
3rd "	1,706	1,593	113	6·6
4th "	1,524	1,452	72	4·7
Year 1940	6,930	6,519	411	5·9
1st Quarter 1941	1,676	1,555	121	7·2
2nd "	1,839	1,706	133	7·2
3rd "	1,755	1,611	144	8·2
4th "	1,664	1,558	106	6·4
Year 1941	6,934	6,430	504	7·3
1st Quarter 1942	1,791	1,674	117	6·5
2nd "	1,967	1,806	161	8·2
3rd "	1,838	1,671	167	9·1
4th "	1,790	1,676	114	6·4
Year 1942	7,386	6,827	559	7·6
1st Quarter 1943	1,808	1,672	136	7·5
2nd "	2,052	1,882	170	8·3
3rd "	1,905	1,726	179	9·4
4th "	1,840	1,688	152	8·3
Year 1943	7,605	6,968	637	8·4
1st Quarter 1944	1,848	1,683	165	8·9
2nd "	2,103	1,926	177	8·4
3rd "	1,971	1,789	182	9·2
4th "	1,986	1,790	196	9·9
Year 1944	7,908	7,188	720	9·1
1st Quarter 1945	1,812	1,627	185	10·2
2nd "	1,899	1,706	193	10·2
3rd "	1,832	1,643	189	10·3
4th "	1,819	1,663	156	8·6
Year 1945	7,362	6,639	723	9·8
1st Quarter 1946	1,952	1,781	171	8·8
2nd "	2,312	2,138	174	7·5
3rd "	2,494	2,332	162	6·5
4th "	2,592	2,441	151	5·8
Year 1946	9,350	8,692	658	7·0

TABLE 18.—BIRTH-RATES for eight large towns in Scotland and for the whole of Scotland.

Year	Scotland	Glasgow	Edinburgh	Dundee	Aberdeen	Paisley	Greenock	Motherwell and Wishaw	Clydebank
1937	17·6	19·8	**15·8**	17·6	17·1	18·9	21·6	20·0	17·9
1938	17·7	19·5	**16·1**	17·6	16·9	18·7	20·2	19·5	18·2
1939	17·4	19·2	**15·5**	15·8	16·6	18·4	20·3	18·8	17·7
1940	17·1	19·1	**15·5**	16·6	15·6	18·5	19·7	19·3	19·1
1941	17·5	18·7	**15·0**	16·3	16·2	19·4	18·8	20·1	19·6
1942	17·6	18·8	**15·8**	15·9	16·1	17·1	20·1	18·8	19·9
1943	18·4	20·0	**16·2**	16·3	16·0	19·0	21·0	19·7	21·0
1944	18·5	19·7	**16·6**	18·0	16·5	18·9	20·5	20·8	21·2
1945	16·9	18·1	**15·4**	16·1	15·5	16·0	18·6	17·7	18·6
1946	20·3	21·0	**19·5**	22·3	20·4	20·0	20·7	21·2	20·5

Table 19.—NOTIFICATION OF BIRTHS.

Analysis of 11,883 Births notified during the year.

I.	Births attended by private doctors		2,634
II.	Births attended by private doctors with a district nurse :—		
	Queen's nurses		521
III.	Births attended by registered midwives		65
IV.	Births attended at home by students and pupil midwives :		
	(1) Simpson Memorial Pavilion	1,046	
	(2) Elsie Inglis Memorial Hospital	582	
	(3) Cowgate Dispensary	216	
			1,844
V.	Births attended in Maternity hospitals and training centres :—		
	(1) Simpson Memorial Pavilion	3,626	
	(2) Elsie Inglis Memorial Hospital	1,390	
	(3) Western General Hospital	1,385	
	(4) Eastern General Hospital	414	
			6,815
VI.	Unattended		4
	TOTAL		11,883

Table 20.—BIRTHS occurring in Municipal Institutions since the passing of the Local Government Act, 1929.

1929	63	Craiglockhart Poorhouse.
1930	44	Craigleith Hospital.
1931	66	Craigleith Hospital.
1932	59	Western General Hospital.
1933	118	Western General Hospital.
1934	161	Western General Hospital.
1935	206	Western General Hospital.
1936	353	Western General Hospital.
1937	491	Western General Hospital.
1938	666	Western General Hospital.
1939	483	Western General Hospital.
	20	Northern General Hospital.
	1	Craiglockhart Institution.
1940	434	Western General Hospital.
	4	Northern General Hospital.
1941	704	Western General Hospital.
1942	881	Western General Hospital.
	1	Edinburgh City Hospital.
1943	1,105	Western General Hospital.
1944	1,289	Western General Hospital.
1945	1,211	Western General Hospital.
	275	Eastern General Hospital.
	2	Edinburgh City Hospital.
1946	1,461	Western General Hospital.
	436	Eastern General Hospital.

Table 21.—EDINBURGH—ILLEGITIMATE BIRTH RATES.

Years.	Illegitimate Birth Rates (per cent.).
1913-1917	8·6
1918-1922	8·8
1923-1927	6·7
1928-1932	6·7
1933-1937	6·5
1938-1942	6·5
1943	8·4
1944	9·1
1945	9·8
1946	7·0

TABLE 22.—OPHTHALMIA NEONATORUM. The interval in days between the Birth of the Child and the onset of the disease.

Days	1	2	3	4	5	6	7	8	9	10	Over 10 days.	No Particulars.	Total.
Cases	0	1	1	5	4	0	3	10	4	1	5	2	36

The confinement was attended by :—

A doctor and nurse	3 cases
Nurses from institutions	5 ,,
Dispensaries	1 ,,
In institutions	27 ,,
Midwives	—
TOTAL	36

Treatment was given :—

At home	9 cases.
At home and welfare centres	2 ,,
In hospital	25 ,,
TOTAL	36 ,,

TABLE 23.—INFANT MORTALITY RATES in Scotland and Eight Large Burghs.

Year	Scotland	Glasgow	Edinburgh	Dundee	Aberdeen	Paisley	Greenock	Motherwell and Wishaw	Clydebank
1937	80	104	**70**	87	72	93	97	72	82
1938	70	87	**61**	77	71	76	75	61	68
1939	69	80	**59**	74	59	91	88	91	76
1940	78	95	**68**	67	86	115	82	65	80
1941	83	111	**66**	89	77	116	90	73	95
1942	69	91	**56**	68	67	97	104	70	57
1943	65	82	**54**	69	68	81	80	69	61
1944	65	95	**51**	60	57	80	81	54	71
1945	56	68	**50**	57	54	75	74	64	52
1946	54	67	**52**	47	42	57	62	54	59

TABLE 24.—EDINBURGH—INFANT MORTALITY RATES (deaths under ONE YEAR per 1000 Live Births).

Year	Infant Mortality	Year	Infant Mortality	Year	Infant Mortality	Year	Infant Mortality
1880	143	1897	164	1914	110	1931	69
1884	128	1898	*141	1915	132	1932	73
1882	121	1899	147	1916	100	1933	66
1883	128	1900	132	1917	‡123	1934	62
1884	135	1901	143	1918	94	1935	70
1885	120	1902	119	1919	§117	1936	68
1886	136	1903	117	1920	89	1937	70
1887	137	1904	125	1921	196	1938	61
1888	128	1905	124	1922	91	1939	59
1889	133	1906	112	1923	82	1940	68
1890	144	1907	121	1924	89	1941	66
1891	138	1908	†111	1925	96	1942	56
1892	135	1909	113	1926	80	1943	54
1893	148	1910	103	1927	80	1944	51
1894	125	1911	115	1928	75	1945	50
1895	152	1912	110	1929	80	1946	52
1896	122	1913	101	1930	82		

* Sanitary Department formed 1898. † Voluntary Visiting in Homes. ‖ City Boundaries extended.
‡ Child Welfare Department formed May, 1917. § Reflection world influenza epidemic, 1918-1919.

TABLE 25.—EDINBURGH—INFANT MORTALITY RATES in Wards.

WARD.	INFANT MORTALITY RATES (per 1,000 Live Births).											
	1911-1915	1916-1920	1921-1925*	1926-1930	1931-1935	1936-1940	1941	1942	1943	1944	1945	1946
1. Calton	106	101	82	67	69	55	91	64	68	48	37	35
2. Canongate	129	120	103	91	66	64	69	42	44	46	84	57
3. Newington	87	65	70	69	70	35	55	25	46	42	26	40
4. Mornlngside	53	67	56	40	46	41	62	28	68	53	60	31
5. Merchlston	66	68	54	53	56	59	33	36	38	40	38	50
6. Gorgie	102	102	71	68	64	56	59	38	57	53	41	64
7. Haymarket	73	71	73	36	60	56	90	36	41	49	55	36
8. St. Bernard's	86	91	73	57	45	64	60	78	55	45	37	38
9. Broughton	82	79	64	79	66	63	73	60	50	56	74	26
10. St. Stephen's	106	79	72	69	80	88	50	74	52	49	61	33
11. St. Andrew's	121	125	109	97	72	70	70	72	113	90	35	89
12. St. Giles	155	143	131	99	79	90	58	82	98	52	84	65
13. Dalry	118	99	81	75	65	58	62	52	40	49	49	49
14. George Square	131	114	85	75	83	70	76	84	76	43	47	48
15. St. Leonard's	143	134	110	98	76	65	70	82	41	79	61	63
16. Portobello	117	100	77	76	64	63	65	37	66	58	43	57
17. South Leith	—	—	89	77	64	68	72	71	48	61	58	61
18. North Leith	—	—	123	95	77	69	81	51	44	39	42	52
19. West Leith	—	—	80	73	68	81	53	48	49	34	33	61
20. Central Leith	—	—	118	92	89	73	71	76	53	59	72	55
21. Liberton	—	—	77	81	60	91	86	91	43	56	42	71
22. Colinton	—	—	52	50	59	59	50	53	39	25	29	57
23. Corstorphine & Cramond	—	—	48	59	61	51	61	38	40	35	40	47
City Rate	**114**	**105**	**91**	**79**	**68**	**65**	**66**	**56**	**54**	**51**	**50**	**52**

* City Boundaries Extended—November, 1920.

TABLE 26.—CAUSES of DEATH among CHILDREN under FIVE YEARS during 1946.

CAUSE OF DEATH.	Under 1 Week.	1 and under 2 Weeks.	2 and under 3 Weeks.	3 and under 4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 and under 6 Months.	6 and under 9 Months.	9 and under 12 Months.	Total under 12 Months.	12 Months and under 2 Years.	2 and under 3 Years.	3 and under 4 Years.	4 and under 5 Years.	Total 1-5 Years.	Total under 5 Years.
Chickenpox	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	1
Measles	—	—	—	—	—	—	2	—	1	3	—	—	1	—	1	4
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	1	1	3	5	1	—	1	—	2	7
Diphtheria	—	—	—	—	—	—	—	2	—	2	1	3	2	1	7	9
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—	5	4	2	1	12	12
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1
Other Tuberculous Disease	—	—	—	—	—	—	1	1	1	3	2	—	2	1	5	8
Meningitis (not Tuberculous)	—	—	1	1	2	—	1	1	—	4	—	2	—	1	3	7
Hydrocephalus	5	1	1	—	7	—	—	2	—	9	—	—	—	—	—	9
Convulsions	—	1	—	—	1	—	—	—	—	1	—	—	—	—	—	1
Pneumonia (all forms)	13	12	4	3	32	8	22	9	4	75	5	2	—	1	8	83
Bronchitis	—	—	—	—	—	3	6	2	—	11	2	—	—	—	2	13
Laryngitis	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Diarrhoea and Enteritis	—	2	1	3	6	31	36	12	10	95	9	—	—	—	9	104
Other Digestive Diseases	—	—	—	1	1	1	1	1	—	4	—	—	1	—	1	5
Congenital Malformations	8	4	2	2	16	5	1	—	—	22	2	—	—	—	2	24
Congenital Heart	5	2	—	—	7	3	—	2	1	13	—	1	2	—	3	16
Premature Birth	93	5	1	1	100	1	1	—	—	102	—	—	—	—	—	102
Atrophy, Debility, and Marasmus	7	2	—	1	10	6	4	2	—	22	—	—	—	—	—	22
Atelectasis	19	—	—	—	19	—	—	—	—	19	—	—	—	—	—	19
Injury at Birth	12	3	—	—	15	1	1	1	—	18	—	—	—	—	—	18
Suffocation, Overlaying	2	—	—	1	3	10	6	2	1	22	—	—	—	—	—	22
Syphilis	1	—	1	—	2	—	1	—	—	3	—	—	—	—	—	3
Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All other Causes	14	4	2	3	23	15	9	8	1	56	8	4	9	4	25	81
Total	179	36	13	16	244	84	94	46	22	490	36	16	20	10	82	572

Table 27.—Edinburgh—NEO-NATAL MORTALITY.
Rates per 1000 Live Births.

Year	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 Weeks	Total under 1 Year
1912	29·6	4·3	6·9	4·1	45	110
1913	25·9	4·3	5·4	5·0	41	101
1914	28·6	6·5	5·7	2·9	44	110
1915	26·5	7·2	6·1	4·1	44	132
1916	29·7	5·2	2·8	7·1	45	100
1917	27·1	5·9	4·3	4·3	42	123
1918	28·8	5·0	3·5	3·1	40	94
1919	28·2	5·3	5·2	4·6	43	117
1920	23·7	5·3	5·8	3·1	38	89
1921	24·8	4·7	3·9	4·9	38	96
1922	24·1	4·2	5·5	2·9	37	91
1923	21·1	3·7	4·7	3·5	33	82
1924	22·0	5·8	5·0	2·7	36	89
1925	22·9	4·0	4·1	2·0	33	96
1926	19·3	4·7	4·2	2·0	30	80
1927	24·1	3·7	3·5	2·0	33	80
1928	20·8	3·4	3·9	2·4	31	75
1929	24·9	4·0	3·8	2·1	35	80
1930	25·2	3·1	2·6	1·2	32	82
1931	23·6	3·6	2·7	2·7	33	69
1932	26·2	2·2	0·9	2·7	32	73
1933	24·4	3·2	2·5	1·6	32	66
1934	21·8	3·2	2·2	1·5	29	62
1935	21·9	4·7	5·0	2·8	34	70
1936	24·2	4·2	3·4	2·3	34	68
1937	25·9	6·1	4·3	1·9	38	70
1938	24·0	4·2	3·3	2·5	34	61
1939	21·6	4·8	3·6	2·7	33	59
1940	23·2	5·1	3·0	2·3	34	68
1941	23·2	3·6	3·3	2·0	32	66
1942	20·7	4·5	2·2	1·4	29	56
1943	20·4	2·4	2·8	1·8	27	54
1944	20·5	3·3	3·2	2·0	28	51
1945	22·4	2·0	0·5	1·4	25	50
1946	19·1	3·8	1·4	1·7	26	52

Table 28.—Edinburgh—NEO-NATAL and INFANT MORTALITY.
Rates per 1000 Live Births.

(Quinquennial Averages.)

	Births.		Neo-Natal Deaths		Deaths 1-12 months		Deaths Under 1 Year	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1911-15 .	6,283	19·5	271	43	442	71	713	114
1916-20 .	5,775	18·1	239	42	356	63	595	105
1921-25 .	8,542	20·1	303	35	474	56	777	91
1926-30 .	7,516	17·3	242	32	352	47	594	79
1931-35 .	7,037	15·6	224	32	254	36	478	68
1936-40 .	7,309	16·0	253	35	224	31	477	65
1941-45 .	7,439	15·8	209	28	201	27	410	55
1946 .	9,350	19·5	244	26	246	26	490	52

Table 29.—Contributory Causes of INFANT MORTALITY.

Rates per 1000 Live Births.

CAUSE OF DEATH	Average 1919-1923		Average 1924-1928		Average 1929-1933		Average 1934-1938		Average 1939-1943		1944		1945		1946	
	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births	Number of Deaths	Rate per 1,000 Births
Whooping Cough	39	4·9	34	4·3	21	3·0	13	1·8	14	1·9	5	·6	7	1·0	5	·5
Measles	20	2·5	25	3·2	12	1·7	12	1·6	3	·4	—	—	6	·8	3	·3
Diphtheria	6	·8	3	·4	2	·3	1	·1	1	·1	1	·1	—	—	2	·2
Other Infectious Diseases	5	·6	5	·6	2	·3	6	·8	1	·1	2	·3	2	·3	1	·1
Tubereulous Diseases	20	2·5	17	2·2	10	1·4	7	1·0	6	·8	3	·4	5	·7	3	·3
Meningitis and Convulsions	38	4·8	33	4·2	20	2·8	13	1·8	12	1·7	7	·9	9	1·2	5	·5
Bronchitis and Pneumonia	161	20·2	143	18·2	114	16·0	98	13·4	93	12·9	74	9·4	63	8·6	86	9·2
Diarrhœa and Enteritis	50	6·3	45	5·7	33	4·6	37	5·1	39	5·4	47	6·0	52	7·1	95	10·1
Other Digestive Diseases	17	2·1	12	1·5	11	1·5	10	1·4	6	·8	8	1·0	5	·7	4	·4
Premature Birth, Malformations, Atelectasis, Injury at Birth	281	35·3	267	34·0	235	33·0	230	31·5	192	26·5	208	26·3	178	24·2	228	24·4
Overlaying	3	·4	3	·4	4	·6	5	·7	6	·8	14	1·8	12	1·6	22	2·4
Syphilis	17	2·1	5	·6	4	·6	1	·1	1	·1	1	·1	2	·3	3	·3

Table 30.—NEONATAL MORTALITY.

Rate per 1000 Live Births.

Year	Premature Birth.	Injury at Birth.	Congenital Malformation.	Atrophy Debility Marasmus.	Diarrhœa and Enteritis.
1911	21·1	2·0	3·6	5·7	·6
1912	21·3	1·4	3·0	6·9	·3
1913	20·5	1·1	2·6	5·1	1·4
1914	17·0	1·4	3·1	9·9	·5
1915	18·3	·2	2·4	9·9	·7
1916	22·8	·3	4·3	7·0	·7
1917	22·4	·4	1·8	5·5	·2
1918	18·4	1·2	1·7	10·6	·2
1919	22·3	·9	2·1	9·5	·2
1920	16·0	1·8	2·3	5·7	·1
1921	19·5	·3	2·3	5·2	1·0
1922	18·6	1·0	2·4	5·7	·9
1923	16·3	·8	2·3	4·6	·7
1924	15·9	1·2	3·9	6·3	·2
1925	15·6	1·4	3·4	4·0	·1
1926	13·4	2·1	2·6	5·9	·1
1927	17·1	2·5	2·8	3·9	·5
1928	14·3	3·0	2·0	3·8	·3
1929	17·1	2·7	3·3	3·4	·7
1930	17·1	3·1	3·1	4·1	—
1931	15·3	3·2	1·5	3·5	·3
1932	17·8	3·9	1·4	1·3	·3
1933	17·8	2·8	2·3	3·1	·1
1934	15·2	3·3	2·7	2·5	·4
1935	15·2	5·3	1·6	3·3	1·6
1936	15·4	3·2	2·6	5·4	·8
1937	17·3	4·2	2·6	5·9	·9
1938	11·5	7·0	3·0	3·0	1·2
1939	8·1	6·4	3·6	4·5	1·4
1940	13·0	4·9	2·9	2·0	1·6
1941	15·7	2·3	3·2	1·7	1·4
1942	11·0	4·6	4·6	·4	·8
1943	11·3	3·2	3·8	1·6	1·1
1944	10·2	2·3	3·4	1·8	2·4
1945	9·9	1·6	3·5	1·2	0·3
1946	10·7	1·6	3·2	1·1	0·6

Table 31.—DEATHS from RESPIRATORY DISEASES.

		1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Pneumonia	(under 4 weeks)	26	17	12	19	22	21	14	17	11	32
„	(total under 1 year)	102	73	71	93	89	77	51	63	52	75
„	(total under 5 years)	150	97	84	124	105	92	67	70	67	83
Bronchitis	(under 4 weeks)	5	—	—	2	2	2	1	2	—	—
„	(total under 1 year)	21	10	11	20	16	16	26	11	11	11
„	(total under 5 years)	24	16	14	23	20	21	28	13	12	13
Laryngitis	(under 4 weeks)	—	—	—	—	—	—	—	—	—	—
„	(total under 1 year)	4	—	—	—	—	—	1	—	—	—
„	(total under 5 years)	5	1	1	1	—	1	1	1	1	1

Table 32.—HOME VISITS to MOTHERS and CHILDREN.

	First Visits		Subsequent Visits.		Ante-natal	
	— 1 Year	+ 1 Year	— 1 Year	+1 Year	First	Subsequent
By Health Visitors .	7,661	267	17,473	25,430	2,220	1,240
By Students . .	353	250	1,533	3,901	138	41
	8,014	517	19,006	29,331	2,358	1,281
	8,531		48,337		3,639	
	56,868					

Table 33.—HEALTH SUPERVISION.

Centre	Number of Clinics Held	New Cases			Old Cases			Totals
		Under 1 Year	Over 1 Year	Total	Under 1 Year	Over 1 Year	Total	
Abbeyhill	52	269	85	354	1,144	368	1,512	1,866
Cowgate	98	143	4	147	696	274	970	1,117
E.G.H.	52	83	—	83	827	37	864	947
Gorgie	108	326	42	368	2,770	950	3,720	4,088
Granton	101	412	181	593	2,018	993	3,011	3,604
High Street	103	186	32	218	1,753	855	2,608	2,826
Leith	158	535	126	661	3,060	933	3,993	4,654
Lochend	99	192	27	219	1,635	646	2,281	2,500
Marshall Street	102	296	80	376	1,898	497	2,395	2,771
Murrayburn	52	127	12	139	1,538	373	1,911	2,050
Niddrie	104	217	42	259	1,569	570	2,139	2,398
Pleasance	90	155	29	184	1,325	427	1,752	1,936
Portobello	97	261	46	307	1,974	438	2,412	2,719
Prestonfield	50	139	35	174	1,179	352	1,531	1,705
S.M.M.P.	156	1,075	—	1,075	4,844	329	5,173	6,248
Stenhouse	93	265	51	316	2,680	1,339	4,019	4,335
Stockbridge	98	357	75	432	2,368	848	3,216	3,648
Torphichen Street	101	352	69	421	2,199	814	3,013	3,434
Windsor Street	103	357	100	457	2,392	720	3,112	3,569
Totals	1,817	5,747	1,036	6,783	37,869	11,763	49,632	56,415

Table 34.—MINOR AILMENTS.

Centre	Number of Clinics Held	New Cases			Old Cases			Totals
		Under 1 Year	Over 1 Year	Total	Under 1 Year	Over 1 Year	Total	
Abbeyhill	52	26	18	44	68	86	154	198
Cowgate	98	12	25	37	118	166	284	321
E.G.H.	52	—	—	—	6	2	8	8
Gorgie	108	8	7	15	90	158	248	263
Granton	101	8	11	19	45	112	157	176
High Street	103	20	24	44	120	443	563	607
Leith	158	26	13	39	133	177	310	349
Lochend	99	14	12	26	158	283	441	467
Marshall Street	102	14	37	51	46	153	199	250
Murrayburn	52	—	4	4	6	30	36	40
Niddrie	104	6	6	12	81	95	176	188
Pleasance	90	12	11	23	123	183	306	329
Portobello	97	29	11	40	201	160	361	401
Prestonfield	50	1	5	6	28	47	75	81
Stenhouse	93	—	3	3	17	36	53	56
Stockbridge	98	7	16	23	79	91	170	193
Torphichen Street	101	17	21	38	152	247	399	437
Windsor Street	103	30	26	56	127	182	309	365
Totals	1,661	230	250	480	1,598	2,651	4,249	4,729

Table 35.—ULTRA VIOLET RAY CLINICS.

Centre	Number of Clinics Held	New Cases			Old Cases			Totals
		Under 1 Year	Over 1 Year	Total	Under 1 Year	Over 1 Year	Total	
Gorgie	57	7	71	78	34	932	966	1,044
Granton	77	8	60	68	64	724	788	856
Leith	72	13	55	68	177	894	1,071	1,139
Leith Nurseries	60	4	18	22	40	233	273	295
Pleasance	74	12	84	96	103	952	1,055	1,151
Portobello	74	7	37	44	22	476	498	542
Prestonfield	78	4	43	47	36	551	587	634
Windsor Street	86	16	105	121	95	1,279	1,374	1,495
Totals	578	71	473	544	571	6,041	6,612	7,156

Table 36.—Analysis of New Cases seen at RHEUMATIC CLINIC.

New cases :—		
Rheumatic	26	
Non-rheumatic	13	
	—	39
Prodromal symptoms	7	
Carditis only	9	
Chorea only	2	
Arthritis	8	
Non-rheumatic :—		
Debility	3	
Nervous instability	6	
Erythema modosum	1	
Intestinal indigestion	1	
Poliomyelitis (Old)	1	
Septic tonsillitis	1	

Table 37.—TODDLER PLAYGROUNDS.

Centre	Number on Roll	Daily Attend-ances	Centre	Number on Roll	Daily Attend-ances
Fountainbridge	20	13	Boswall Parkway	21	18
Moray Knox	22	16	Granton	40	34
Pleasance	30	25	Lochend	25	20
Stockbridge	20	16	Marshall Street	20	18
Tron Square	20	17	Pilton	21	17
Barony Place	33	26	Portobello	24	19
Elm Row	20	17	St. Ninian's, Leith	28	24
Craigentinny	20	17	Tollcross	20	15
High School Yards	30	24		462	375
Jamaica Street	20	18			
Yardheads, Leith	28	21			

DEPARTMENT OF VENEREAL DISEASES.

CLINICAL MEDICAL OFFICER'S REPORT.

New Applicants.—The statistical returns for 1946 show a very great increase in the number of those presenting themselves at the clinics, the 1946 total of new applicants being 5,979 as against 4,276 in 1945, an increase of 1,703.

Of the new applicants examined, the number found to be infected was 4,173, which is more than double the figure (2,044) recorded in 1945. The details of the 1946 infections are given in tabular form and for comparison are followed by the figures for 1945, the latter being in brackets :—

	New Cases.	Transfers in.	Total.	Percentage.
Syphilis	854 (521)	378 (224)	1,232 (745)	29·5 (25·5)
Gonorrhœa	1,246 (844)	219 (39)	1,465 (883)	35·1 (41·3)
Chancroid	38 (13)	2 (1)	40 (14)	1·0 (0·6)
Non-specific venereal disease	1,400 (666)	36 (26)	1,436 (692)	34·4 (32·6)

There are therefore striking increases in all the forms of venereal infection, especially noteworthy being the enormous (108 per cent.) increase in those classed as " non-specific."

The patients admitted to hospital numbered 1,227 as against 1,127 in 1945. The out-patient attendances were 69,171 as compared with 74,771 in 1945. This apparent decrease is entirely due to the adoption of a new method of recording attendances.

Syphilis.—The total, 854, of new cases of syphilis represents an increase of almost 64 per cent. above the total, 521, of the year 1945. When placed in comparison with the figures for previous years, the total for 1945 was made to look unduly small owing to " Transfers in " not being included ; this change was made for the first time last year and resulted in a loss of proportion which has now been rectified. The subjoined table shows the fluctuations which have occurred before, during, and after the global warfare of 1939-1945.

Total New Cases of Syphilis, including " Transfers-in."

Year.	Males.	Females.	Total.
1938	342	360	702
1939	321	423	744
1940	328	384	712
1941	550	362	912
1942	690	392	1,082
1943	598	468	1,066
1944	406	415	821
1945	342	403	745
1946	668	564	1,232

Many more men than women patients are transferred in from other centres, and this has an effect in obscuring the distribution of the cases as between the sexes. This effect, however, is to some extent counterbalanced by the incompleted separation of the sexes in the recording of the cases of congenital syphilis : under the headings " Congenital Syphilis : Women and Children," it has been customary to record congenitally infected children of both sexes who receive their treatment in the women's department.

The next table displays the numerical distribution of the syphilis cases between the two sexes and as between " Early Syphilis : " " Syphilis under Treatment " (*i.e.*, " Transfers-in ") : " Later Stages of Syphilis " : and " Congenital Syphilis."

Year.	Early Syphilis.		Syphilis under Treatment.		Later stages of Syphilis.		Congenital Syphilis.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Women & Children
1938 ...	94	30	80	45	145	136	23	149
1939 ...	137	62	50	84	117	123	17	154
1940 ...	142	88	50	42	125	122	11	132
1941 ...	345	87	78	47	106	104	21	124
1942 ...	445	183	107	42	110	73	28	94
1943 ...	313	196	174	66	97	79	14	127
1944 ...	117	133	189	43	89	94	16	140
1945 ...	110	115	144	80	84	104	4	104
1946 ...	287	220	289	89	82	95	10	160

Early Syphilis.—A glance at this column of the table will show that the numbers of recent infections of syphilis, in both men and women, are very great. The figure for women (220) touches a new high level, exceeding even the peak years 1942 and 1943. It is arresting to contemplate that in 1946 the fresh cases of syphilis in women were actually more than seven times more numerous than in 1938, the year before war broke out. The number of men recently infected with syphilis, while more than twice as great as in 1944 and 1945, is still below the high peaks of the years 1941, 1942 and 1943. But many men of sexually-active age are still out of the country serving with the Forces: whether the changes produced by the return of these men will be balanced by the withdrawals of young men for their spells of military service must remain a matter for speculation. Changes in the composition and distribution of the population as between the sexes and the different age groups will continue to exercise a major influence on the incidence of venereal disease.

Syphilis under Treatment.—As this heading includes such categories as merchant seamen, demobilized personnel reporting for continuation of surveillance, and long-distance transport drivers, it is natural to expect a preponderance of men over women, and an increase as the men return to civilian life, but it should be noted that, even so, the figure of 289 recorded in 1946 is quite phenomenal and swells the total of the male new cases of syphilis to a number, 668, which has only once been exceeded (in 1942) in all the years under review.

Later Stages of Syphilis.—In 1946, as in the two previous years, the female cases outnumber the male, and this again is probably a reflection of the alterations in the population brought about by the war. In spite of the increase in fresh infections, the numbers of the late cases remain consistently low, and this may be interpreted as an indication of the efficiency of the diagnosis and treatment of early infections.

Congenital Syphilis.—It was to be expected that an increase in congenital syphilis was bound to result from the spread of acquired syphilis consequent upon the wartime breaking up of homes and of families. The high figure for 1946 may be an indication that the expectation is becoming actual fact, and, if so, this cannot but be very disturbing. Certainly the figure (160) recorded is the highest for the last nine years.

The protection of the children through the routine Wassermann blood-testing of expectant mothers was continued regularly in the Maternity Department of the Royal Infirmary. During 1946, the number of expectant mothers blood-tested was 4,148, and of these 18 were found to require anti-syphilitic treatment.

In some antenatal clinics, blood-testing is only practised when a woman first presents herself at her first pregnancy, and not at subsequent pregnancies, and this gap in protective practice should be stopped before a steadily rising incidence focusses attention upon it and compels tardy action.

Gonorrhoea.—The table now following gives the incidence for the last nine years.

New Cases of Gonorrhœa.

Year.	Males.	Females.	Total.
1938	780	288	1,068
1939	561	242	803
1940	609	205	814
1941	903	284	1,187
1942	835	278	1,113
1943	688	306	994
1944	397	251	648
1945	553	330	883
1946	1,091	374	1,465

There has been a spectacular increase in the infections of gonorrhœa, especially in men, but the figures for both men and women are the highest ever reached in the recent years, even far overtopping those recorded in the wartime peak years of 1941 and 1942.

Non-Specific Venereal Disease.—Non-specific urethritis was exceedingly prevalent among the troops in the Middle East and in the Mediterranean Theatre during the war, and this prevalence may be reflected in the very large numbers of of cases now reported as non-specific. Among these cases there have been several instances of the syndrome known as Reiter's disease, the features of which include non-specific urethritis, arthritis, conjunctivitis and iritis.

Penicillin in the Treatment of Venereal Diseases.—On 3rd August 1946, there was published in the British Medical Journal an article by the medical staff entitled "Problems arising from the use of Penicillin in Gonorrhœa," and among the conclusions arrived at in this article are the following:—

> "A one-shot or two-shot technique in the treatment of gonorrhœa is more suitable in civilian practice than the multiple-dose methods, and such limited-dose techniques can be conveniently applied to out-patients.
>
> In 190 male and 55 female cases of gonorrhœa a two-injection scheme (2 by 200,000 units) gave cure rates of 95·8 per cent. and 90·9 per cent. respectively.
>
> The two-dose method advocated, using saline solutions of sodium penicillin, is simple and easily applied, the solutions used requiring no special skill in dispensing beyond the care necessary to ensure sterility and asepsis."

Further experience during the year confirmed the conclusion that two intramuscular injections of an aqueous solution of sodium penicillin, each injection

carrying a dose of about 250,000 units, would achieve, in uncomplicated cases of gonorrhœa in males, a cure-rate of around 95 per cent. In uncomplicated cases in females, the cure-rate, though appreciably lower, was still such as to leave only a relatively small proportion requiring retreatment. For all complicated cases, whether in males or in females, a multiple injection technique was used and the patient was admitted to hospital.

In the treatment of syphilis, further experience in 1946 served to confirm the conclusion already reached in 1945 that the original dosages of penicillin for the various stages of the disease were too low, and that, even when exhibited in greatly increased dosage, penicillin should usually be reinforced by the traditional arsenical and bismuth therapy. Accordingly, in seronegative and seropositive primary syphilis, and in early and late secondary syphilis, the dosage of penicillin adopted varied, according to the stage, from 5 or 6 to 10 or 12 million units. The supplementary treatment of early syphilis comprised, according to the resistance of the serological (Wassermann and Kahn) tests, one or more 10-weeks' courses of twice weekly intravenous mapharside and intramuscular bismuth. The disadvantage of adding the toxic substance, arsenic, to the non-toxic penicillin was offset by the relatively low toxicity and high tolerance of the arsenoxide, mapharside, chosen as the routine arsenical.

When the individual dose of penicillin used is 50,000 units, which is given "round-the-clock" at 3-hourly intervals, it takes 100 injections and 12½ days to give 5 million (mega) units. With an individual dose of 100,000 units, 3-hourly, 10 mega units can be given in the same time, viz., 12½ days.

In administering the combined penicillin-arsenic-bismuth treatment for syphilis, and the parenteral penicillin treatment for gonorrhœa, the injections given in 1946 reached the impressive total of 83,192.

Fever Cabinet Treatment.—During 1946, continued use was made of electropyrexia to potentiate chemotherapy either with penicillin, or with the sulphonamides, or with arsenic and bismuth, or with the combinations of these agents appropriate to their use in resistant complications of gonorrhœa or syphilis. The cases treated in the inductotherm fever cabinet included non-specific urethritis, Reiter's syndrome, arthritis, and general paresis.

Default.—The table now appended shows that, while the number of defaulters in 1946 is higher than during the war years, yet the percentage is reasonably low, and lower than in 1945 in spite of the great increase in the numbers of patients dealt with.

Defaulters.

Year.	Number.	Per Cent.
1938	528	23·5
1939	539	24·3
1940	393	21·9
1941	397	19·8
1942	376	20·8
1943	404	23·4
1944	328	23·0
1945	399	16·2
1946	471	14·1

Turn-Over of Patients.—The turn-over of patients has been greatly increased and, for comparison, the figures for 1945 are appended in brackets. During 1946 the total number of patients under treatment was 8,273 (6,596). During the year, 471 (399) patients defaulted, 1,287 (882) were transferred to other centres for continuation of treatment, 3,522 (3,022) were discharged and 22 (34) died, thus leaving at the end of the year 2,916 (2,259) patients still under observation and treatment.

Defence Regulation 33B.—The following is a summary of the year's working of Regulation 33B :—

Number of cases notified once only	111
Number of cases notified twice or more	3
Total number of cases notified	114
Total notifications received	117

Twenty-one of these notifications were referred to the Services or to other Local Authorities and (owing to insufficient particulars), 49 could not be traced, but during 1946, 40 persons were brought to the clinics, and, on medical examination, 37 (92·5 per cent.) of these had either syphilis or gonorrhœa.

As this regulation was brought into being as a wartime emergency measure, now that the exigencies of war no longer exist, it is to be anticipated that "33B." may soon be withdrawn. Experience of its operation in this area since 1944 has shown that the notifications sent in enabled the tracing and identification of some of the most dangerous and persistent spreaders of infection. The suggestion of compulsion in the background helped to influence recalcitrant, irresponsible and incorrigible individuals, to control their persistent promiscuity even if only temporarily and to a slight extent, and to bring them for treatment which would be likely to remove their infectivity at least for some weeks or months. When even this semblance of power has been taken away, nothing will prevent the open flouting, by those who are so disposed, of such nebulous authority as still remains. Moreover, the mechanism for the tracing of sources of infection through the active follow up of often scanty details will cease to function. The passing of the regulation will have to be met by an intensification of such normal methods as "contact letters," but it should clearly be recognised that contact tracing on a high level of efficiency, *e.g.*, on the U.S.A. standard, demands more staff and more expense.

The Nurse Almoner's Report for 1946 shows that 869 cases were investigated and followed-up and that of these, 721 or 82·9 per cent. returned to the clinics for treatment and observation. The pursuance of this work meant that the nurse almoner paid 1,986 visits during the year.

An interesting development may be foreshadowed in the nurse almoner's comment that she has on occasion succeeded in promoting an atmosphere of cordial co-operation with managers of industrial concerns; this development may come to be regarded as a facet of the growing science of industrial welfare.

Acknowledgments.—As this report has indicated, the work in 1946 was much more voluminous, more arduous and exacting than usual, and it is both a pleasure and a duty to thank the staff for rising to the occasion and meeting the difficulties with loyal support and cheerful co-operation.

MUNICIPAL GENERAL HOSPITALS.

WESTERN GENERAL HOSPITAL.

REPORT BY THE MEDICAL SUPERINTENDENT.

The tables which follow detail the work carried out in the Western General Hospital during the year 1946. There were 5,087 patients admitted, a number greater than in any previous year and the result of a proportionate increase in the intake of all departments.

The surgical side of the hospital was divided into seven sections, viz. : general surgery, urological surgery, gynæcological surgery, thoracic surgery, children's and plastic surgery, and surgery of the ear, nose and throat.

The general surgery was of a good mixed type and the admission of acute surgical cases from military units stationed in the area kept the incidence of emergency surgery at a fair level. This unit changed hands three times in the course of the year and only began to settle down as the year ended. Because of lack of ward space it acted as host to the other units with the exception of the urological and the children's section of the E.N.T. unit. It was always full and at times admissions had to be refused. Separate wards were given to the urological unit, a step which benefited both patients and staff alike. This unit with, and because of, its special facilities in diagnosis and treatment became well-established and recruited its patients from an ever-widening field. The establishment within it of a urological reference library and museum was an interesting and valuable development.

Full use was made of the gynæcological and ear, nose and throat surgical beds, but these were not nearly sufficient to deal with the demand, a defect which it is hoped will be remedied in 1947.

Some plastic and children's surgery was done, but again lack of beds limited the volume of work.

A thoracic surgical unit was established in mid-year but, unfortunately, beds in anything like adequate number could not be provided. The work of the unit was crippled accordingly, and again the demand for treatment far outweighed the means to provide it. This was extremely unfortunate and caused considerable disappointment. Steps taken during the year, however, will provide a moderately satisfactory answer early in 1947 and give this new and energetic unit a chance to develop properly.

The varied surgical work was served by one large operating theatre and the use of half of one small operating theatre. It is obvious that these theatres were fully used and further development will necessitate more theatre space.

The medical unit, although handling more patients than in 1945, was not so over-run as its surgical opposite number. Empty beds could be found occasionally and waiting time for admission was never long. The quality and variety of the clinical material admitted was good and the results of treatment speak for themselves. Towards the end of the year special beds were laid aside for the investigation of patients suffering from chronic rheumatism, a subject of nation-wide interest. Full use was made of these beds. Some improvements in side-room facilities were made and fully used and plans made for further improvement which will not become operative until 1947. This unit also changed hands during the year from the point of view of local day-to-day control.

The children's unit had a mixed year. Again control changed hands. In view of all the difficulties facing it, it did well, but any future development will require its remodelling, or better, re-siting in more roomy quarters. Surgical and medical cases were treated side by side to mutual advantage, as surgical and medical specialist collaboration in treatment was the more easily obtained and used for each individual problem. Infective enteritis in infants and babies admitted from the town caused acute isolation problems for the nursing staff and finally all such cases had to be refused and referred to an isolation hospital.

The maternity unit performed prodigies of work. The demand for admission was so heavy that hundreds of cases had to be refused. Each patient's residence in days had to be cut to the absolute minimum compatible with safety, and despite this empty beds were the rarest of sights. Yet the unit remained comparatively free from infection and what did appear was quickly dealt with, a feature which speaks highly for the vigilance and ability of the medical and nursing staff in charge. In general, the work was similar to previous years with the difference that more ante-natal cases were admitted for treatment or observation and several special investigations into matters of obstetric interest were carried out. Once more, control of the unit changed hands in September.

The follow-up department had a very busy year and units were operating in it all day throughout the week with the exception of Saturday afternoon. Attendances at all clinics increased but the largest attendances were at the ante-natal clinics, many of which had 90 to 100 attendances. The buildings were inadequate to house such numbers and hardship through waiting must have been very great to the patients. The staff was increased, but further development demands more staff and new building.

Demands on the ancillary services were heavy. The dietetic department was more used than ever in the treatment of patients and managed, with the food resources available, to maintain the required diets moderately free from monotony. This department was happily built with an eye to its future use and is still more than adequately equipped to deal with the calls made on it.

The X-ray department was also busier than ever and the staff had to be increased. Even so, in the latter part of the year the work became too great for its resources of space and apparatus. This matter, including more adequate staffing both medical and technical, was reviewed, and plans were made for considerable extension to take place in 1947. The trainees in this department were all successful in their Society of Radiographers Diploma examinations.

Bio-chemical examinations dropped in total compared with 1945 but the type of examination requested increased largely in complexity. Here, also, the position was reviewed and arrangements made for an improved service. A new department is required but building difficulties forbid it and the best use of the available premises will have to be made for some time to come.

The physiotherapy department was overtaxed and could not deal with all the work directed towards it. What was done was well done. New premises, equipment and increased staff are needed and have been scheduled for 1947.

The nursing staff gave their usual excellent service. Recruitment was steady, all normal vacancies were filled, and twenty-six extra probationers were enrolled to replace the same number of Civil Nursing Reserve nurses lost to us by the cessation of that most valuable service. In the General Nursing Council examinations,

fifteen out of eighteen entrants for the final, and all of thirty entrants for the preliminary, passed. A twelve-week preliminary training course was instituted in quarters of its own and three courses run with apparent success.

The hours of duty were shortened and an attempt made to approximate to the Wheatley recommendations. These last two changes made it seem at times that there was an actual shortage of staff. Further improvements in training and working hours can only be made by either more staff accommodation being made available or more nurses living out or a combination of both. The staff of the maternity unit had a particularly hard year. Thirty-two pupils sat their Part I. C.M.B. examinations and all passed. There was some recruitment difficulty at one period but this was overcome. The introduction of Part II. training planned for 1947 should aid in preventing this difficulty recurring.

Domestic staff were more plentiful and worked well. Male orderlies were introduced for some of the heavier duties. The resident accommodation requires improvement.

The standard of catering was maintained at a satisfactory level as in previous years. Complaints were few and praise much more common—a tribute to the work of the kitchen staff.

For the patients' convenience a library service under the control of a trained librarian was instituted with the co-operation of the City Librarian. It had a successful start and was widely appreciated.

The Paderewski hospital had its usual busy and successful year. Work done by the staff there contributed a great deal to the training of our nurses.

In closing, I wish to thank all members of the staff for their loyal and co-operative service and to mention the excellent service of the Civil Nursing Reserve nurses seconded to us in the war years.

Statistics for the Year 1st January to 31st December 1946.

		Remaining 1st Jan.	Admitted.	Discharged.	Died.	Remaining 31st Dec.
Adults	Males	63	986	882	87	80
	Females	103	2,274	2,158	96	123
Children	Boys	57	1,002	957	49	53
	Girls	15	825	801	29	10
	Totals	238	5,087	4,798	261	266

The number of cases treated during the year was 5,325, which included the following :—

Military	297	Merchant Navy...	2
R.A.F.	2	Royal Navy	2
A.T.S.	44	W.R.N.S.	1
W.A.A.F.	3	Scheme Cases	232
Ministry of Pensions	16		

Total beds	434 + 110 Paderewski Hospital
Average number of occupied beds ...	242*
Average length of stay, in days, per patient	17*
Highest daily number of patients ...	280 (9/1/46)*
Lowest daily number of patients ...	210 (12/10/46)*

* These figures exclude Paderewski Hospital.

SURGICAL UNIT.

During the year 1,661 operations were performed; 435 of these were major operations and 1,226 minor operations. A general anæsthetic was administered in 1,025 operations, and 185 operations were carried out with a spinal anæsthetic; 451 operations were performed under local anæsthesia or without an anæsthetic.

CLASSIFICATION OF OPERATIONS.

MAIN THEATRE.

1. Operations on brain, spinal cord and peripheral nerves	5
2. ,, lymph glands	12
3. ,, upper air and food passages	3
4. ,, breast and thorax	59
5. ,, abdomen	333
6. ,, genito-urinary organs	312
7. ,, bones and joints (including amputations)	45
8. Various unclassified operations	140
9. Abscesses—incisions, etc. (including out-patients)	122
	1,031

Number of plasters 94

EAR, NOSE AND THROAT THEATRE.

Total number of operations			608
Operations on tonsils and adenoids	307		
,, for mastoid, etc.	9		
,, on nose and throat	203		
		519	
Bronchoscopies, laryngoscopies, œsophagoscopies, etc.		70	
Mastoid and antrum dressings		19	
			608

(The above E.N.T. operations include 175 Polish cases.)

DENTAL DEPARTMENT.

Number of patients treated—adults 22; children 0	22
Number of extractions	22

CLASSIFICATION OF SURGICAL CASES TREATED ON ADMISSION.

1. Diseases of brain, spinal cord and peripheral nerves	8
2. ,, lymph glands	12
3. ,, blood vessels (including gangrene)	49
4. ,, tongue and jaws, upper air and food passages	69
5. ,, breast	39
6. ,, thorax	24
7. ,, abdominal organs	344
8. ,, urinary and genital organs	311
9. ,, female pelvic organs	155
10. ,, bones and joints	112
11. ,, skin and cellular tissue	97
12. Primary cardiac failure and surgical trauma	4
13. Various unclassified diseases	28
	1,252

(Included in above are 31 children.)

UROLOGY DEPARTMENT.

CLASSIFICATION OF DISEASES OF CASES EXAMINED IN UROLOGICAL THEATRE

1. Diseases of prostate	48
2. ,, bladder (including neurogenic bladders—22)	74
3. ,, kidneys and ureters	53
4. ,, urethra	15
5. Miscellaneous diseases	13
Reporting well	48
No abnormality in urinary tract	40
	291

UROLOGICAL THEATRE.

Examinations :—

Cystoscopic and pyelographic	265	
Cystometrographic	30	
Bougies	55	
Catheterisation	10	
		360

Operations :—

Transurethral resection of prostate	30	
Fulguration of tumours	19	
Suprapubic cystostomy	1	
Cauterisation of urethra	1	
Uretero-meatotomy	2	
Lithotrity (per urethral)	1	
		54
Reporting well		48
		462
Polish patients included in above—New cases	22	
Old cases	20	

THORACIC SURGICAL UNIT.

Operations :—

1. Diagnostic bronchoscopy	46
2. Diagnostic œsophagoscopy	3
3. Diagnostic thoracoscopy	2
4. Repair of chest wound	1
5. Rib resection for empyema	10
6. Rib resection for drainage of lung abscess	1
7. Resection of lateral chest wall for sarcoma	1
8. Thoracotomy and excision of extra-pleural tumour	1
9. Lobectomy for bronchiectasis	3
10. Pneumonectomy for carcinoma of lung	2
	70

MEDICAL UNIT.

Classification of Cases Treated on Admission.

1. Infectious and parasitic diseases	7
2. Cancer and other tumours	19
3. Rheumatism, diseases of nutrition and other general diseases	75
4. Diseases of blood, and blood-forming organs	28
5. ,, nervous system and sense organs	48
6. ,, circulatory system	158
7. ,, respiratory system	192
8. ,, digestive system	105

9. Non-venereal diseases of genito-urinary system	29
10. Diseases of skin and cellular tissue	13
11. ,, bones and organs of locomotion	13
12. Congenital malformations	2
13. Senility	12
14. Endocrine disorders	25
15. Unclassified diseases	123
	849

CHILDREN'S UNIT.

Classification of Cases Treated on Admission.

1. Infectious diseases	—
2. Premature babies	1
3. Rheumatism, diseases of nutrition and other general diseases	11
4. Diseases of blood and blood-forming organs	10
5. ,, nervous system and sense organs	9
6. ,, circulatory system	1
7. ,, respiratory system	47
8. ,, digestive system	41
9. Non-venereal diseases of genito-urinary system	1
10. Diseases of skin and cellular tissue	52
11. ,, bones and organs of locomotion	5
12. Congenital Malformations	16
13. Convenience cases (healthy)	15
14. Tonsillectomy cases	272
15. Surgical cases	69
16. Convulsions of unknown origin	2
17. Tuberculosis (notifiable cases)	5
18. Various unclassified diseases	18
19 Ear, nose and throat cases	16
	591

MATERNITY UNIT.

Number of cases treated	1,752
,, ,, admitted (includes babies with mothers)	1,799
,, ,, discharged	1,790
,, ,, delivered (1,274 normal; 132 abnormal)	1,406
,, post-partum puerperal admissions	47
,, deaths—mothers 2; infants 32	34
,, babies born (including 26 sets of twins)	1,432
,, ,, stillborn	29

There have been 1,887 ante-natal cases examined during the year. Of these, 1,774 were admitted. Abortion cases totalled 33 and 30 other cases of complicated pregnancy were not confined. The abnormal deliveries included 47 by forceps and 14 cæsarean section.

The causes of maternal deaths were as under:—

Pre-eclamptic toxæmia (nephritis).

Obstetric shock

OUT-PATIENT DEPARTMENT.

Recommended cases:—		
Surgical	905	
Medical	754	
Ante-natal	9,472	
Gynæcological	285	
Sick children	486	
Ear, nose and throat	550	
Polish cases	850	
Post-natal	928	
Urological	181	
		14,111
Ordinary out-patients treated		6,457
		20,868

Table to show the Results of Treatment or Termination of Illness.

Cured	3,899	Not improved	338
Improved	561	Died	261
Remaining under treatment	266		

CAUSES OF DEATH.

	Adults.		Children.	
	Males.	Females	Boys.	Girls.
1. Infectious and parasitic diseases	3	5	1	...
2. Cancer and other tumours	17	18	...	...
3. Rheumatism, diseases of nutrition and other general diseases	1	3	2	...
4. Diseases of the blood and blood-forming organs	2	1	...	...
5. ,, ,, nervous system and sense organs	5	7	1	...
6. ,, ,, circulatory system	20	38	3	...
7. ,, ,, respiratory system	10	6	6	5
8. ,, ,, digestive system	10	2	...	...
9. Non-venereal diseases of the genito-urinary system	17	4	1	...
10. Diseases of pregnancy and child-birth	...	2	3	2
11. Diseases of the bones and organs of locomotion	1	1	...	...
12. Congenital malformations	...	...	2	1
13. Diseases peculiar to the first year of life	...	...	30	21
14. Senility	...	1	...	...
15. Deaths due to violence	1	8	...	...
Total	87	96	49	29

Number of post-mortem examinations 140 (including 20 Poles.)

PHYSIOTHERAPY DEPARTMENT.

The total number of patients treated during the year was 791, of which 81 were cured, 643 were improved and 64 were not improved: 39 were still under treatment at the end of the year: 3 patients died. During the year 8,015 treatments were given.

BIO-CHEMICAL LABORATORY.

Analyses carried out during the year totalled 2,973, made up as follows:—

Western General Hospital	1,566
Eastern General Hospital	862
Southern General Hospital	522
City Hospital, etc.	23
	2,973
Total number of reports	1,791
Total number of electrocardiograms	249

SPECIAL DIET DEPARTMENT.

Cases treated by special diet during the year	343
Remaining at 1st January 1946	34
Number of cases admitted	309
„ „ „ discharged	295
„ „ „ died	16
„ „ „ remaining at 31st December 1946	32

The disabilities treated included the following :—

Diabetes	9 per cent. of cases
Stomach disorders	33 „ „ „
Kidney disorders	14·5 „ „ „
Obesity	8 „ „ „
Gall-bladder disease	0·5 „ „ „
Cardiac conditions	10 „ „ „
Colitis	4 „ „ „
Jaundice	6·5 „ „ „
Diarrhœa	6 „ „ „
Miscellaneous (Including High Cal. diets for T.B., etc.) ...	8·5 „ „ „

X-RAY DEPARTMENT.

Number of X-ray examinations—1st half-year	3,419	
2nd half-year...	3,608	
		7,027
These include—In-patients	2,506	
Out-patients	1,226	
Paderewski Hospital	2,732	
Other hospitals	563	
		7,027
Barium examinations		1,043
Pregnancies		492

PADEREWSKI HOSPITAL.

Statistics for the Year 1st January to 31st December 1946.

Admissions.	Discharges.	Deaths.
1,505	1,503	15

Number of babies born 189

OUT-PATIENT DEPARTMENT.

Number of patients treated 24,248

DENTAL DEPARTMENT.

Number of patients treated 11,885

OPERATING THEATRE.

Number of major operations	311
Number of minor operations (including out-patients)	760
Number of plasters	120
Total ...	1,191

EASTERN GENERAL HOSPITAL.

REPORT BY THE MEDICAL SUPERINTENDENT.

The number of patients treated in the Eastern General Hospital during the year 1946 was 1,788. In addition 424 babies were born in the Maternity Unit.

As before, the patients were admitted to the three departments of the hospital, viz., ordinary medical wards, Tropical Diseases Unit and the Maternity Unit.

The drop in the total admitted was due to fewer patients being admitted to both the ordinary medical wards and the Tropical Diseases Unit. In the first named a slightly more chronic type of patient was admitted, resulting in a greater number of beds being occupied from day to day despite the diminished turnover. The Tropical Diseases Unit was also dealing with a more stubborn type of case, and there too, although the turnover was smaller, the amount of investigations and therapy was in no way diminished.

Admission to the Maternity Unit increased markedly. This was due to the establishment of an annexe to the original unit in two of the unoccupied wards in the hospital. This new addition increased maternity accommodation from 16 beds and cots to 31 beds and cots, but this existing space was never fully used during the year because of staff shortage. The few surgical beds in use in 1945 disappeared because of shortage of staff and for that reason the number of operations done in the theatre dropped.

New services were begun. First, a laboratory was finished, equipped, and placed in charge of one of the medical members of the staff who had the whole-time services of a trained technician. The services given by this laboratory were mainly of value to the Tropical Diseases Unit, but space will permit of the laboratory being used to give services to any other units in the hospital. A dietetic kitchen in charge of a dietitian was opened and a marked improvement in the standard of special diets resulted. A library service under the ultimate control of the City Librarian was opened and proved a great boon to the patients. Lastly, a Catering Supervisor was appointed to take charge of all catering matters, but this appointment took place so late in the year that little or no time was left in which to review the change critically. It is hoped that this step will result in a considerable improvement in the standard of the catering in the hospital.

Structural changes in connection with upgrading still continue and it is hoped in 1947 to be able to report further improvements in the ability of the hospital to provide a service for the community.

On the nursing side the Tropical Diseases Unit alone offered no staffing problem. Difficulty was experienced in obtaining trained nurses for the Maternity Unit and it was only solved after the year under review had ended. In the general medical wards the staff position deteriorated further and great difficulty was encountered in maintaining a nursing service. Domestic staff were more plentiful and this side of the hospital ran more smoothly than in previous years. Further improvement can still be looked for.

The massage department and the X-ray department were moderately occupied. New equipment is being provided in the X-ray department and an extension of the massage department is contemplated.

The end of the year coincided with the retiral from the Corporation's service of the matron, Miss Agnes Edwards, who had opened the hospital in 1931 for the Public Health Department and who had given whole-heartedly of her services throughout the intervening years. Presentations were made to her by all grades of the staff, a token of the esteem in which she was held. Her services will be badly missed and it is fitting that her retiral and our appreciation of her should be placed on record in this report.

In conclusion I have to thank all members of the staff—medical, nursing, domestic, clerical and maintenance—for their willing services during the year.

EDINBURGH CASES.

Statistics for Year 1st January to 31st December 1946.

	Remaining 1st Jan.	Admitted.	Discharged.	Died.	Remaining 31st Dec.
Males	43	444	305	142	40
Females	49	269	198	71	49
Total ...	92	713	503	213	89

Number of cases treated	805	
Total number of beds	426	
Average number of occupied beds	94	
Highest daily number of occupied beds	122	(6.7.46)
Lowest „ „ „ „	77	(26.9.46)
Average length of stay in days per patient ...	50	
Number of post-mortems	22	

Table to show the Results of Treatment.

	Cured.	Improved.	Not Improved.
Males	105	185	15
Females	70	120	8
Total ...	175	305	23

Classification of Admissions, Discharges and Deaths.

Disease.	Admissions.		Discharges.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.
Infectious and parasitic diseases	95	17	103	25	2	1
Cancer and other tumours	2	7	1	8	14	5
Rheumatism, diseases of nutrition and other general diseases	13	13	19	15	3	...
Diseases of blood and blood-forming organs ...	1	2	2	2	...	1
Diseases of nervous system and sense organs ...	64	38	25	17	29	15
Diseases of circulatory system	92	43	24	16	55	28
Diseases of respiratory system	69	42	24	9	24	6
Diseases of digestive system	14	14	14	15	2	1
Non-venereal diseases of genito-urinary system ...	21	6	23	6	6	...
Diseases of pregnancy and childbirth	...	27	...	30	...	2
Diseases of skin and cellular tissue	64	49	61	46	1	1
Diseases of bones and organs of locomotion ...	2	1	2	1	...	2
Senility	...	4	...	2	6	7
Violence	3	2	3	2	...	2
Nil	4	4	4	4	...	...
Totals ...	444	269	305	198	142	71

SCHEME CASES.

Statistics for Year 1st January to 31st December 1946.

	Remaining. 1st Jan.	Admitted.	Discharged.	Died.	Remaining 31st Dec.
Males	84	598	636	5	41
Females	...	32	29	...	3
Total ...	84	630	665	5	44

Of the total number admitted, 472 were Service cases. There were 429 patients admitted to the Tropical Diseases Unit.

Table to show the Results of Treatment.

	Cured.	Improved.	Not Improved.
Males	317	305	14
Females	12	12	5
Total ...	329	317	19

Classification of Admissions, Discharges and Deaths.

Disease.	Admissions.		Discharges.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.
Infectious and parasitic diseases	417	13	442	11	...	...
Cancer and other tumours	5	4	6	3	1	...
Rheumatism, diseases of nutrition and other general diseases	9	...	11	...	...	...
Diseases of blood and blood-forming organs ...	...	...	1	...	...	...
Diseases of nervous system and sense organs ...	13	1	9	1	2	...
Diseases of circulatory system	2	...	2	...	1	...
Diseases of respiratory system	19	1	20	1	...	...
Diseases of digestive system	78	9	89	9	1	...
Non-venereal diseases of genito-urinary system ...	11	1	11	1	...	...
Diseases of skin and cellular tissue	11	3	12	3	...	...
Diseases of bones and organs of locomotion ...	4	...	6	...	...	...
Violence	29	...	27	...	...	...
Totals	598	32	636	29	5	...

MASSAGE DEPARTMENT.

Number of patients treated		365
,, ,, ,, discharged		107
,, ,, ,, remaining		21
,, ,, treatments		6,330
Cured	51	
Improved	35	
Not improved...	21	
Died	2	
	109	

DIETETIC KITCHEN.

Commenced August 1946.

Number of patients given special diet	161
,, ,, ,, discharged	120
,, ,, ,, died	9
,, ,, ,, remaining	32

THEATRE.

Major Operations	99	
Minor Operations	333	
Anæsthetics : General ...	80	
Spinal	42	
Local	33	
	155	
Sick Staff	180	

MATERNITY UNIT.

	Adults Admitted.	Babies Born. Male.	Female.
Admitted during 1946	445	230	194
Discharged ,, ...	435	221	185
Died ,, ...	2	1	...
Stillborn ,, ...	...	4	8
Remaining at 31st December 1946 ...	18	8	9

Causes of Death.

Adults : (1)Toxæmia (2) Obstetric shock
Concealed accidental hæmorrhage. Retained Placenta (not post- partum hæmorrhage).
Nephritis.

Infant : Cerebral hæmorrhage.

SOUTHERN GENERAL HOSPITAL.

REPORT BY THE SUPERINTENDENT.

The following is a report of the work done at the Southern General Hospital during the year 1946.

It will be noted that the last of the E.M.S. patients—Military—left the hospital on 1st May 1946 and we returned to the care of Public Health patients entirely. For various reasons but particularly shortage of nurses, the number of beds available has become less and less during the year, and at the date of this Report totalled only 76.

The period under review has been extremely difficult and disheartening to all of us concerned with the welfare of the hospital, and it is to be sincerely hoped that the changes which have been forecast will re-invigorate the staff, who have never failed to give of their very best, and so give them the zest which will be so necessary to set up a new hospital at the Northern.

I would like to take this opportunity of again expressing to the matron, and to the medical, nursing, administrative and domestic staffs, my most sincere thanks for all they have done, not only this year but during the years of the war. My association with them here has been a very happy one and it is with some feeling of regret that I now bid them farewell.

Statistics for the Year 1st January to 31st December 1946.

PUBLIC HEALTH AND GOVERNMENT SCHEME PATIENTS.

		Remaining 1st Jan.	Admitted.	Discharged.	Died.	Remaining 31st Dec.
Public Health	Males ...	41	283	156	133	35
	Females ...	76	96	65	73	34
Government Scheme	Males ...	1	1	2	..	...
	Females ...	...	...	...	...	...
Military	Males ...	7	5	12	...	...
	Females ...	...	1	1	...	...
	Total ...	125	386	236	206	69

Number of cases treated	Public Health and Government Scheme	498
	Military	13
	Total ...	511

The sources of admission were as follows :—

	P.H. Patients.	Govt. Scheme Patients.
From Own Home	307	1
,, Northern General Hospital	37	...
,, Western General Hospital	13	...
,, Salvation Army Homes	6	...
,, Whitefoord House	2	...
,, Royal Infirmary	2	...
,, Ravenswood Convaleseent Home	1	...
,, City Hospital	3	...
,, Soldiers' Home, Colinton	3	...
,, Blinkbonny Home, Falkirk	1	...
,, Murray Homes, Gilmerton	1	...
,, Chalmers Hospital	1	...
,, St. Michael's Home, Linlithgow	1	...
Homeless	1	...
	379	1

Discharges were as follows :—

	P.H. Patients.	Govt. Scheme Patients.
To Own Home	137	2
,, Northern General Hospital	36	...
,, Western General Hospital	19	...
,, Salvation Army Hostels	7	...
,, City Hospital	7	...
,, Oswald House	2	...
,, Eastern General Hospital	4	...
,, Liberton Cottage Hospital	1	...
,, Murray Homes, Gilmerton	1	...
,, Little Sisters of the Poor	1	...
,, Soldiers' Home, Colinton	1	...
,, Blinkbonny Home, Falkirk	1	...
,, St. Raphael's Nursing Home	1	..
,, Queensberry House	1	...
,, Whitefoord House	1	...
Homeless	1	...
	221	2

Table to show the Results of Treatment or Termination of Illness.

Cured	45	Not improved	46
Improved	130	Died	206

Remaining under treatment :—P.H. Patients ... 69

CAUSES OF DEATH.

	Males.		Females.	
	P.H. Patients.	Govt. Scheme.	P.H. Patients.	Govt. Scheme.
1. Cancer and other tumours	31	...	12	...
2. Rheumatism, diseases of nutrition and other general diseases	...	...	3	...
3. Diseases of the blood and blood-forming organs	...	...	2	...
4. Diseases of the nervous system and sense organs	23	...	21	...
5. Diseases of the circulatory system ...	47	...	23	...
6. ,, ,, ,, respiratory system	18	...	7	...
7. ,, ,, ,, digestive system ...	2	...	1	...
8. Non-venereal diseases of genito-urinary system	9	...	2	...
9. Diseases of skin and cellular tissue ...	2	...	1	...
10. ,, ,, bones and organs of locomotion	1	...	1	...
	133	...	73	...

Number of Post-mortem examinations 58

CLASSIFICATION OF PATIENTS DISCHARGED.

	P.H. Patients.	Govt. Scheme Patients.
1. Infectious and parasitic diseases	7	...
2. Cancer and other tumours	5	...
3. Rheumatism, diseases of nutrition and other general diseases	17	...
4. Diseases of the blood and blood-forming organs ...	4	...
5. ,, ,, nervous system and sense organs	43	...
6. ,, ,, circulatory system	55	...
7. ,, ,, respiratory system	36	1
8. ,, ,, digestive system	9	...
9. Non-venereal diseases of genito-urinary system ...	4	...
10. Diseases of the skin and cellular tissue	14	...
11. ,, ,, bones and organs of locomotion ...	21	1
12. Unclassified diseases	6	...
	221	2

Average number of occupied beds	103
Highest daily number of patients	140 (10/1/46)
Lowest daily number of patients	67 (6/11/46)
Average length of stay in days per patient	35

MASSAGE AND ELECTRO-THERAPY DEPARTMENT.

The total number of patients treated during the year was 244, of which 195 were cured and improved; 46 not improved; 3 patients died and 59 were under treatment at the end of the year. During the year treatments were given as follows:—

Massage	1,593
Galvanism and faradism	...
Diathermy	...
Infra-red and radiant heat	719
Ionisation	...
Ultra violet artificial sunlight	170
Re-education exercises	1,668

MENTAL HEALTH SERVICES.

BANGOUR HOSPITAL.

REPORT BY THE MEDICAL SUPERINTENDENT.

(1) The Mental Hospital.

During the year part of the Emergency Hospital accommodation reverted to its original purpose and it became possible to transfer from the receiving mental hospitals 222 of the evacuated patients. These included all the male patients chargeable to Edinburgh, in Lanark, East Lothian and Roxburgh District Mental Hospitals, as well as half the number of males under care in the Crichton Royal Institution, Dumfries. These moves were rendered possible only because sufficient male staff returned with the patients. In 1945, it will be recalled, 118 Edinburgh patients were transferred from the Royal Edinburgh Hospital so as to relieve overcrowding there. In all 938 patients were transferred to other mental hospitals in 1939 and there is still a residue of about 400, mainly females, awaiting return.

Arrangements were also made to admit to Bangour all the fresh cases occurring in Edinburgh. These numbered 219, of whom 102 were voluntary patients. The proportion of voluntary admissions is commendable—almost 50 per cent.—but the position cannot be regarded as wholly satisfactory until a figure in the neighbourhood of 80 per cent. is reached. One of the main difficulties in the way is the considerable number of senile patients in whose case, under existing conditions, there appears to be no alternative to certification. It is regrettable that recourse to an objectionable legal process should be necessary before the aged and infirm are afforded proper care and attention.

It is doubtful, too, whether the option of voluntary admission is sufficiently understood by the public, and whether it is offered, as it should be, in every case. This applies particularly to rate-aided patients. There is no good reason why the proportion of voluntary patients should be any higher in private than in public hospitals. Were more attention given to the needs of senile patients and the benefits of voluntary treatment more widely appreciated, recourse to certification could be substantially reduced. The effect of such a reduction on the status of the mental hospital is too obvious to need emphasising. Certification ought to be the last resort, and not the first as it is in all too many instances.

The following table sets out the mental hospital figures in detail :—

Under Care, 31st December 1945 :—

	Males.	Females.	Total.
Voluntary	15	12	27
Certified	99	126	225
	114	138	252
Admissions in 1946 (including Transfers) :—			
Voluntary	60	42	102
Certified	259	80	339
	319	122	441
Discharged :—			
Voluntary	25	32	57
Certified	19	26	45
	44	58	102

Died :—			
Voluntary	1	1	2
Certified	27	16	43
	28	17	45
Remaining 31st December 1946 :—			
Voluntary	49	21	70
Certified	312	164	476
	361	185	546

Allocation of Beds.—A considerable part of the main hospital is still incorporated in the Emergency Hospital Scheme, but application is being made forthwith for the release of 60 additional beds. This will enable us to take back 40 evacuated female patients and, at the same time, leave a slight margin of reserve for Edinburgh's direct needs. The rate at which the reversion of the remaining beds can proceed depends partly on the recruiting of female staff and partly on the making of provision elsewhere for certain of the Emergency Units. In spite of improved conditions and enhanced prospects, recruitment of staff has been painfully slow, and matters have been made worse by the fact that the female staff sent elsewhere with the evacuated patients have almost all left the nursing service. Also, though tentative soundings have been made in various directions it has hitherto proved impossible to find alternative accommodation for the Brain Injuries Unit which still occupies two villas in the parent hospital. So long as this state of affairs persists it will be impossible to provide for the pre-war number of over 1,000 mental patients. The Brain Injuries Unit, however, has done such excellent work during the emergency that it deserves special consideration.

Lunacy Law Reform.—The most important event affecting the future of the Scottish mental hospitals during the year has undoubtedly been the publication of the Russell Committee's Report on the reform of the Lunacy Law. There has long been a demand for a consolidating Act and for the amendment in certain directions of the existing statutes. The Committee's recommendations on these matters have met with a tepid reception among Scottish psychiatrists.

So far as certification is concerned it is worth putting on record that, though the main Acts were passed as long ago as 1857 and 1862 there has never come before the Courts in Scotland a case of wrongous certification. In itself that is eloquent testimony to the adequacy of the existing safeguards against improper certification as well as a tribute to the prescience of the legislators of that time. Despite that notable record, the Russell Committee recommend that the 1862 Act should be superseded by Section 6 of the English Lunacy Act of 1890. The English Act provides that the judicial authority may in certain circumstances conduct an inquiry into the condition of the alleged lunatic before granting an order for his detention. The adoption of this proposal would be a retrograde step. Far from simplifying the judicial procedure it would complicate it unnecessarily. The process of certification is already distasteful enough to all concerned without adding the risk of bickering in a law court. In any event, no case has been made out for a change in the direction indicated.

Again, the Committee recommend the adoption, with minor modifications, of the English Mental Treatment Act of 1930. Scottish psychiatrists are opposed to this innovation. Generally speaking, England has lagged behind Scotland in making provision under the Lunacy Acts for the voluntary treatment of mental

disorders. The Act of 1930 was a belated attempt to catch up with the Scottish practice. The working of the Act over the last sixteen years has brought to light many anomalies which no one wishes to see imported into the Scottish system. In so far as the English Act applies to voluntary patients, its provisions are utterly irreconcilable with the Scottish practice over the last eighty years.

In Scotland a voluntary patient can leave the hospital at any time on giving three days' notice. That right is made clear to the patient on admission and the hospital authorities feel in honour bound to implement the bargain at any time the patient selects. So long as the patient does not express a wish to leave, his treatment continues. Under the English Act, however, such continuity of treatment becomes impossible in some cases, for after six months, the criterion of "voluntas" must be applied—*i.e.* an attempt must be made to decide whether the patient actively wishes to remain under treatment. If it is decided that he does not, he must be certified or discharged.

The criterion of "voluntas" is a shaky foundation on which to proceed to certification. In many instances, the decision must be pure guess-work. Moreover, what could be more distasteful to a patient who recovers, say, nine months after voluntary admission than to discover that in the meantime he had been certified, registered as a "lunatic," deprived of his civil rights and stripped of the right to manage his own affairs? And all that, in the face of the solemn pledges given on admission.

What we are aiming at in Scotland so far as voluntary patients are concerned can be put in two sentences. In view of the fact that so many persons suffering from mental disorder are willing to place themselves under care, no obstacle should be put in their way, whatever the character of their illness or its degree of severity, provided they are capable of understanding what an application for voluntary admission implies. And once accepted as voluntary patients their status as such should be safeguarded and not exposed to the hazard of a highly questionable decision as to "voluntas."

There is widespread disappointment that the Committee has not given more consideration to a plea urged for many years past that the existing definition of a voluntary patient should be altered. In the Act of 1866 a voluntary patient is described as a person desirous of submitting himself to treatment "but in whose case it would not be legal to grant certificates of insanity." In other words, if certification is possible it must be employed. This limitation is universally recognised as unjustifiable and if rigidly applied would create a barrier to the early treatment of large numbers of suitable cases. In practice it has been largely ignored, but it is high time the legal position was brought into line with the approved practice.

Instead of incorporating the English Treatment Act of 1930 and so creating a new and unnecessary category of patient, Scotland asks for the abolition of any and every restriction on the voluntary mode of admission, including the necessity for obtaining the General Board of Control's sanction to admit. That, with the greatly extended facilities foreshadowed in the National Health Bill for the treatment of "temporary" patients, will cover the ground far more adequately than the English Act does. In any event, until these extended facilities are more clearly delineated, the time is not ripe for introducing additional legal procedures of doubtful value.

These two matters are among the most important surveyed by the Committee and it seems a pity that in each case the only suggestion forthcoming is that an objectionable English expedient should be grafted on our Scottish system. The introduction of new legal machinery of the type suggested will hinder and not help.

On the other hand, there are proposals in the Report which everyone will welcome. At present there is, for example, a disconcerting lack of uniformity in the interpretation of the existing statutory provisions relating to the committal and care of "dangerous lunatics." The "dangerous lunatic" is not nearly so common as is generally supposed, but it is beyond question that this relatively small group require special arrangements which the ordinary mental hospital should not be asked to provide. It is, therefore, satisfactory to note that the Report advocates a State institution large enough for the segregation and proper treatment of the "dangerous lunatic," and separate alike from the prison and a corresponding State institution for mental defectives.

Equally desirable are the two proposals that the State institution should be managed by the General Board of Control and not by the Prison Commissioners, and that the General Board should have the power to transfer a "dangerous lunatic" from an ordinary mental hospital to the State institution without reference to the law courts. The present procedure of having to prove a dangerous assault before a Court of Law as a preliminary to transfer is objectionable from every point of view.

No one will regret the disappearance from the Statute Book of the terms "lunatic," "insane person," "person of unsound mind" and "asylum," all of which have acquired an undesirable connotation. The mental hospitals have now a place along with other types of hospital in the defence of the community against the inroads of disease and are no longer to be regarded merely as places of detention. For that reason everything that serves to perpetuate the old unhappy tradition should be ruthlessly scrapped.

New Forms of Treatment.—In the last twenty-five years there have been several conspicuous advances in the treatment of mental disorders, mainly by the application of physical methods. General paralysis which a quarter of a century ago used to account for a considerable proportion of mental hospital admissions is hardly ever seen now. The disease selected its victims mainly from men in the prime of life and resulted in an unparalleled degree of dementia and death inside two to three years. No means of staying the progress of the disease was discovered till Wagner von Jauregg introduced malarial inoculation and so altered the whole picture. That was certainly an epoch-making discovery and now it looks as if another new method of treatment —again physical in its character—were worthy of a place alongside it. I refer to the operation of Prefrontal Leucotomy, which promises to enhance the prospects of recovery in another group of patients.

The operation consists in severing by surgical means the connecting tracts linking up the frontal lobe of the brain with another area known as the thalamus. As this latter body is concerned in determining the emotional state of the individual, great benefit results from the operation in those cases in which emotional tension with all its secondary complications is the characteristic feature. Even where recovery does not follow, there is generally such an improvement that life is made

tolerable for many to whom it was previously an intolerable burden. As a by-product, problems of nursing and management become more tractable.

Like all new expedients leucotomy, although recognised as specially applicable to the treatment of these "tension" cases, is being tried out in a variety of conditions, but with less reassuring results. This experimentation is justifiable but the time is not far off when its sphere of usefulness will be accurately defined. When that happens, there is no reason to doubt that another and most potent instrument will have been added to the psychiatrist's armamentarium.

During the war years much experimental work has been done in the field of convulsion therapy—*i.e.*, the induction of convulsions indistinguishable from those of major epilepsy. At first the convulsant used was a chemical substance injected direct into the blood stream, but though the convulsants have gone on improving, even the best of them have certain drawbacks. These are best obviated by the use of electric shock apparatus, and this has now become the method of choice.

At first sight one might well be tempted to ask why the manifestations of a second disorder should be deliberately superimposed on an already existing one. The explanation lies in the observation that epilepsy if not unknown is at least exceedingly rare among patients suffering from that particular form of psychosis. It was, therefore, conjectured that there might be some essential antagonism between the two conditions and that the use of easily controlled epilepsy might well combat the initial disorder. It is on all fours with the induction of malaria in cases of general paralysis. That procedure resulted from the observation that general paralysis was practically unknown in the malarial districts of Italy though syphilis, the real cause of general paralysis, was all too common.

2. The Emergency Hospital.

During the year there were 2,722 admissions to the Emergency Hospital, made up as follows :—

	Service Patients.	Civilian Patients.
Tuberculosis	308	—
Plastic Unit	106	207
Gynæcology	—	319
Brain Injuries	140	490
General Surgery	462	477
Medical	128	85
	1,144	1,578

In addition, 60 patients from various local authorities, including Edinburgh, were admitted to the tuberculosis wards.

Up to the end of 1946, the total number of "scheme" patients admitted to the Emergency Hospital was 30,253. These comprised in the main Service patients, the balance being made up of certain restricted categories of civilians. It had been hoped that as the demands of the services receded and the doors were thrown open to all classes of civilians, the resources of the hospital would continue to be fully exploited. Shortage of staff, however, has confined the intake within much narrower limits.

Tuberculosis.—A very considerable part of the Emergency Hospital—about 700 beds in all—is devoted to the treatment of tuberculosis, 240 of them being occupied by East Fortune Sanatorium and 220 by Service cases of pulmonary tuberculosis. The remainder are divided between civilian pulmonary and surgical

cases. At the moment the Service accommodation is the only part fully occupied, and that because each of the three Services has undertaken to staff its own beds. Elsewhere one sees the depressing spectacle of empty beds which, given the staff, could do so much to relieve the general pressure on sanatorium accommodation.

The general statistics relating to the Emergency Hospital are as follows :—

"Scheme" Cases.	Service Patients.	Civilian Patients.	Total.
No. of Admissions during 1946	1,144	1,578	2,722
,, Discharges ,, ,, ...	1,216	1,542	2,758
,, Deaths ,, ,, ...	17	40	57
Average Daily Number			433

These figures include the following which relate to service patients suffering from pulmonary tuberculosis :—

Admitted	308
Discharged	239
Died	11

In comparison, the civilian figures show the other side of the picture :—

Admitted	60
Discharged	102
Died	19

The relatively small number of admissions and the high discharge rate reflect the shortage of nursing staff which is particularly acute in the civilian tuberculosis wards.

One of the first considerations in the treatment of pulmonary tuberculosis is rest—rest for the whole body and complete quiescence for the affected organ. To produce the latter various surgical measures may be used, all of them resulting in the collapse and consequent inactivity of the lung. The treatment of these lung conditions has, therefore, tended to change over from a passive to an active form. The effects of this, whether judged from the purely physical angle or from the psychological, are impartial enough, but at best they are only remedial. The real goal of prevention, depending as it does on so many and so varied factors, still seems a long way off. Meantime, an indication of the extent to which surgery enters into the treatment of lung conditions is shown by these figures :—

(1)	*Pneumothorax* :—	
	Inductions	80
	Refills	4,156
(2)	*Pneumoperitoneum* :—	
	Inductions	7
	Refills	209
(3)	*Phrenic operations*	44
(4)	*Thoracoplastics*	20
(5)	*Adhesion sections*	62
(6)	*Aspiration of pleural cavity*	235

These figures relate only to "collapse" therapy and do not include operations such as colostomy, nephrectomy and many minor procedures necessitated by secondary manifestations of the disease.

Brain Injuries Unit.—The work of this department continued at the same high pressure as in previous years. It makes heavy demands both on surgeons and nurses even at the best of times but under present conditions of staffing it is

doubly arduous. All credit is due to the whole staff of the Unit for their strenuous efforts to cope with an ever-increasing volume of work.

In all 490 cases, drawn from widely scattered areas and many of them urgently in need of operation, were admitted during the year.

Plastic Unit.—In contradistinction to former years the proportion of service patients in the Plastic Unit has fallen from 80 per cent. to 50 per cent. and most of them are long-term cases requiring repeated operation. Burns, with their disfiguring aftermath of scarring and contractions, still make a formidable contribution to the number under treatment. The Unit is well equipped to deal with burns in their acute—and therefore more tractable—stages, but a considerable proportion of cases still present the late effects when admitted.

As only part of the available accommodation has been in use, a start has been made with cubicalising some of the wards. The end in view is to create separate accommodation for young children and also provide private quarters for more grossly disfigured patients. In plastic surgery, sepsis is the arch enemy, as unless it is rigorously excluded it may readily undo the patient work of skin-grafting. The provision of separate rooms is a necessity when extensive grafts are attempted.

Gynaecology.—Dr. Lennie relinquished his charge on his appointment to the chair of midwifery in Glasgow and was succeeded by Professor Johnstone. The latter instituted a fresh scrutiny of the Royal Infirmary's waiting list and about 200 fresh cases were notified to Bangour as requiring treatment. These arrears are being gradually overtaken.

General Surgery.—Two events of note occurred during the year. A knighthood was conferred on Mr Henry Wade in recognition of his distinguished services. Sir Henry's work has meant much to the hospital throughout the emergency period. His honour crowns a life-time of devoted work and is richly deserved.

In June overtures were made to the Department of Health for leave to open a surgical out-patient clinic for persons from the neighbouring towns and villages. After consultation with the Royal Infirmary which had long served the area, the clinic was duly established. For the last six months of the year one afternoon and one evening session were held each week and in that time 621 patients were seen. The services of the clinic are available only to patients recommended by their own doctors and therefore differ from those of a casualty out-patient department. The success which has attended this development has raised the question of offering similar facilities for other than surgical complaints. That, however, is for the future.

Ancillary Services.—These, including Radiography, Physiotherapy, Occupational Therapy and Physical Culture, have all taken an active part in the work, especially of rehabilitation. All of them dove-tail into one another and make the formerly wearisome business of convalescence much more tolerable. What with these and ample recreational facilities there is little room for boredom. In this connection a special word of commendation is due to the Red Cross volunteers who have carried on the occupational therapy in the female service pulmonary ward and the R.A.F. male ward. Their willingness to work in what are considered infectious wards without monetary reward is highly appreciated.

In spite of all the difficulties inseparable from the times in which we live, there are still some things to be grateful for. Among these one might well place first the selfless devotion of the nursing staff. To them all, from the Matron to the most recent recruit, all praise is due.

GOGARBURN HOSPITAL.

REPORT BY THE MEDICAL SUPERINTENDENT.

The following tables show the work carried out at Gogarburn Institution during the year 1946.

The outstanding feature of the year was the closing, in May, of the E.M.S. section of the hospital, which was hastily organised in the dark days of 1940. The hospital was originally instituted on a temporary basis to meet an emergency. It continued in service throughout the war, dealing not only with medical and surgical cases, but there developed a special unit for dealing with diseases and injuries of the peripheral nerves, and of the blood vessels. This neurovascular unit became one of the foremost in the country, not only in the treatment of these special types of disease and injury, but also as a research centre for investigation of the many problems associated with them.

During the period August 1940 to May 1946, the hospital dealt with 7,980 service patients of all ranks and 1,555 civilian patients, a total of 9,535 admissions. In addition many thousands of service patients received treatment as out-patients.

It was hoped that the withdrawal of the E.M.S. units would permit the resumption of our normal standards of accommodation in the mental wards, and to make some reduction of the heavy waiting list which confronts us. Neither of these hopes has come within sight of realisation owing to the desperate shortage of nursing staff. We are at present dealing with the same number of patients as before the war with half the number of nurses, working shorter hours. This has been achieved by the overcrowding of the mental wards as compared with pre-war standards, in order to secure the greatest economy of staff. It would be invidious to claim that these measures are satisfactory either as regards the interests of the patients or the nurses, but they do ensure that the institutional provision for mental defectives is maintained at pre-war levels in the interest of the community as a whole, during the present period of exigency.

While the number of patients resident has remained unaltered, the admissions are of course restricted to the vacancies occasioned by discharge or death.

To the nursing staff, whose efforts have made it possible to carry on the work of the Institution under difficult and trying circumstances, I am profoundly grateful.

Admissions.

	Males.	Females.	Total.
Number of patients on Register at 1st January 1946	277	252	529
Cases admitted during the year	25	12	37
Total cases under treatment	302	264	566
Cases discharged during the year	15	13	28
Cases died during the year	13	4	17
Patients on Register at 31st December 1946... ...	274	247	521

The physical condition of the patients on admission was as follows :-

	Males.	Females.	Total.
In fair or average health and condition	19	8	27
In poor or indifferent health and condition	2	2	4
In weak or very weak health and condition ...	4	2	6
	25	12	37

Classification.	5—10 years.		10—15 years.		15—20 years.		20—25 years.		Over 25 years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Idiot	...	...	...	...	...	...	...	...	...	1	...	1
Imbecile	1	...	...	...	2	1	...	...	3	...	6	1
Feeble-minded ...	5	4	9	3	3	3	1	...	1	...	19	10
Total—Males ...	6		9		5		1		4		25	
Total—Females		4		3		4		...		1		12

The following table shows the methods of disposal of the patients discharged from the Institution in the course of the year :—

	Males.	Females.	Total.
Discharged to their own homes	9	6	15
Discharged to other Institutions	2	...	2
Discharged on attaining the age of 16 years... ...	...	3	3
Discharged by lapse of authority for detention ...	4	4	8
	15	13	28

The number of deaths occurring in the course of the year was 17. The causes of death were as follows :—

	Males.	Females.	Total.
Diseases of central nervous system	2	...	2
Diseases of cardio-vascular system	1	...	1
Diseases of alimentary system	...	2	2
Diseases of respiratory system	10	2	12
	13	4	17

The Emergency Hospital.

As previously stated the E.M.S. hospital closed in May 1946, and the following table shows the work done up to that time. Looking back over the exacting war years, there were to my mind two outstanding features of the E.M.S. section. The first was that it was a happy hospital. We were fortunate in having a distinguished, conscientious and co-operative surgical and medical staff, backed by an interested and enthusiastic nursing staff. This spirit of enthusiasm pervaded the whole hospital, so that despite the fact that the majority of the patients were resident for long periods, complaints were practically unknown.

The second was the manner in which the hospital and the mental section mutually benefited from each other's presence. The mental patients benefited from the medical skill and facilities available and freely given when required. They also benefited from the increased recreational facilities which they shared. The patients in the E.M.S. benefited from the many routine tasks performed by the mental patients which materially added to their comfort.

In every community there must be the brilliant people and the simpletons, and what to do with the simpletons will always be a problem. If they can be trained, and their efforts organised, then as the war has shown, they have a valuable contribution to offer.

In hospital on 1st January 1946	84
Admissions of Service patients	84
Admission of civilian scheme patients	114
Total admissions	198
Members of Services treated as out-patients ...	278
Total number of patients treated during year ...	560
Discharges of Service patients	167
Discharges of civilian scheme patients	152
Total discharges	319
Deaths of service patients	1
Deaths of civilian scheme patients	2

SCHOOL MEDICAL SERVICE.

REPORT BY THE CHIEF EXECUTIVE SCHOOL MEDICAL OFFICER.

The following report for the year ended 31st July 1946 is the thirty-ninth since the institution of school medical inspection in Edinburgh and the sixteenth since the transfer of the service to the municipality.

General Statistics.

Population of the Area	459,439
Number of Schools :—	
* (*a*) Nursery	5
Nursery classes	9
(*b*) Primary	73
(*c*) Secondary	19
* (*d*) (i) Special Schools	17
(ii) Special Class	1
(*e*) In receipt of grant from Authority and medically inspected	1
	125

* Includes the following not medically inspected by the Authority : four Special Schools (Bangour Hospital, Challenger Lodge, Gogarburn Institution and Muirfield Convalescent, Gullane) and one Nursery School (Drygrange).

Number of Children on the registers :—

Primary	41,257
Camp	56
Secondary	14,150
Special	1,123
Special (outwith Edinburgh)	105
Nursery	240
Nursery (outwith Edinburgh)	28
Total ...	56,959

Average number of children in attendance ... 52,052

Sanitary Condition of Schools.

The Architect has completed a survey of all sanitary fittings in the Authority's schools. Repairs have been effected on fifty-four installations and all annexes have been limewashed or painted.

The new recommended standards of lavatory provision cannot be introduced into existing schools under present conditions but they are to be provided in new schools, including temporary buildings. These standards are : one w.c. per 10 girls ; one per 15 boys plus 10 linear feet urinal per 75 boys.

The duties of medical officers include : inspection of sanitary annexes on each visit : inspection and signing of Cleansing Registers once each term : reporting on the appropriate form, any defect of room hygiene noticed during class-room inspections.

Organisation and Administration.

A.—System and extent of medical inspection and treatment.

Routine inspections are made of the specified age-groups. The Authority defrays the cost of medical treatment except payment of hospital costs other than orthopædic.

In 1942 the Authority agreed in principle that the number of assistant school medical officers be increased from five to eight, each being in charge of a district of the City. Owing to the re-housing and re-planning schemes not being completed, the full expansion has not been made but the number has been increased by one, to six.

B.—System and extent of dental inspection and treatment.

Report by the Senior Dental Officer.

Five dental officers completed 1933 sessions of 2¾ hours in the dental treatment of school children, 8 sessions for "toddlers" or pre-school children, and 65 sessions in treating nursing or expectant mothers.

Schools.—In the schools inspected, 3,000 more children were examined and 2,600 more were treated than last year at the clinics of Lauriston Place, Leith and Pennywell, in spite of the fact that the equivalent of six months' time of one dentist was lost through illness and "overseas service leave." Some interruption was caused when the valued skill of Mr Swan was lost to Edinburgh in April, and his post temporarily filled by Mr Baillie.

With greater efforts being made to save permanent teeth rather than extract them, 5,600 fillings were completed as against 3,900 in the year ending July 1944.

The acceptance rate to treatment rose slightly.

Children accepting treatment, 1943-4	...	...	54·5 per cent.
Children accepting treatment, 1944-5	...	...	57·0 ,,
Children accepting treatment, 1945-6	...	...	59·5 ,,

These are the true "consent" percentages and do not include the special or emergency cases, of which nearly 3,000 were treated, many having been referred by the medical officers and nurses, whose help was duly appreciated.

Health Week.—During the early part of the year the dental section of the exhibition had a most successful week. With models kindly lent by the Dean of the Dental Hospital, Professor Crew, and Elliott's Dental Co., together with posters and leaflets, which were supplied by the Dental Board, the dental officers and attendants were kept busy throughout the whole time giving advice to parents and children. Many requests for clinic appointments were made, particularly after the showing of the dental films, a type of propaganda well worth repeating in schools.

Work during the year.—Attached are the work returns showing figures of extractions, fillings, anæsthetics and "other operations," which include 644 scalings, ranging from a thorough mechanical cleansing to the longer operation of the removal of tartar or calculus followed by polishing of the teeth. To retard the increase of decay in young children's mouths over 1,000 "baby" teeth were

trimmed and treated with a solution of silver nitrate. Of the 5,650 fillings, 5,500 of the cavities were lined with a sedative non-conducting substance in accordance with modern dental practice. In 329 cases advice was given to the parent or guardian, and the figure is included in the report since much time is used in this service, often longer than the operations.

An analysis of "Sundries" is shown, giving some details of a new section of work, *i.e.*, dental plates fitted in order to correct irregularities of teeth. Thirteen plates have been fitted, and eight cases completed. Also, in fourteen cases where mastication was impaired, dentures have been constructed, the patients having lost vital teeth through no fault of their own.

Regarding inflammatory condition of the mouth and gums, to which attention was drawn by the Medical Officer of Health in his Annual Report, 1943-4, an improvement has taken place. "Trench Mouth" or "Vincent's Disease" was readily diagnosed in only 24 cases, but of ten other suspected cases four were found to be negative when swabs were taken for bacteriological tests. For inflamed gums, sometimes the forerunner of Trench Mouth, 614 dressings were applied, and in most patients the mouths were healthy within a fortnight, but usually these cases derived most benefit when the children had also been referred to the medical officers for advice regarding their general health and habits.

Mobile Dental Unit.—A recent innovation and a welcome addition was the gift of an equipped dental unit on wheels, presented by the Scottish Red Cross Society. Used for work at two outlying schools, its value was immediately evident, since some parents who had not the time or interest to bring their children for treatment now reversed their decision and asked for an appointment to be given. In each school the rate of acceptance was raised 10 per cent. and local interest was such that articles and photographs were published in an Edinburgh newspaper.

Maternity and Child Welfare Schemes.—An appended report gives details of the treatment of pre-school and nursery-school children, of whom 65 attended the clinics. In 43 cases a general anæsthetic was given, and in four cases fillings were inserted.

The scheme is rapidly growing, and the parents are usually most appreciative.

Mothers.—Under the same heading is the return of work for nursing and expectant mothers, showing that 86 patients were given full dental treatment, including the provision of 50 dentures, and in most cases a timely talk on "Baby's teeth." Thanks are extended to the Maternity and Child Welfare Medical Officer and his staff for their help in the running of the service, to which the dental staff has devoted from 3.45 to 4.45 p.m. each working day, amounting to a total of 65 sessions or half-days.

Future developments.—The following appeared in a circular from the Department of Health for Scotland, dated 5th August 1946 :—

> "School dental work will not achieve the desired results unless the arrangements aim at securing for each child one routine dental inspection per annum. . . .
>
> It is important that the treatment should be the complete treatment necessary."

In the case of Edinburgh's school-children, some new clinics are planned, one new clinic at Pilton is completed. These are definite steps towards our goal which is to provide a 100 per cent. dental service for a most important part of the community.

C.—School nursing and arrangements for following up.

The Authority has agreed in principle that there should be two inspection nurses to each medical officer, a total of sixteen. These will be allowed fifty per cent. of their time for supervision in schools, work in sub-clinics and home visitation.

D.—Co-ordination with other Authority Departments.

The staff of the School Medical Service is part of the Public Health Department and so under the administrative control of the Medical Officer of Health who is Chief Administrative School Medical Officer, the Chief Executive School Medical Officer being given the status of a Depute Medical Officer of Health. This ensures that all facilities of the Public Health Department are available for the School Medical Service.

Medical inspection and treatment of school children are delegated to the Public Health Committee, and health or medical functions in respect of which the Central Department is the Scottish Education Department are delegated to the Education Committee.

The Chief Executive School Medical Officer is accommodated in the Education Offices so that close co-ordination is maintained with all sections. Close co-ordination exists with City Social Services regarding boarded-out and mentally-handicapped children, with the City Architect's Department, both Education and Public Health Sections, with the Town Clerk's Department, with the Police and the Juvenile Courts and Remand Home.

E.—Co-operation with voluntary bodies and other outside agencies.

Co-operation is maintained with the following local associations and societies :— Association for Mental Hygiene, Catholic Enquiry Office, Children's Holiday Fund, Council of Social Service, Cripple and Invalid Children's Aid Society, Royal Scottish Society for the Prevention of Cruelty to Children, Seaforth Sanatorium Trust and the Voluntary Youth Welfare Association.

Care Committee.—South Bridge School Care Committee was initiated in 1941 in co-operation with Edinburgh University Settlement. Its operation was suspended for some months owing to the resignation of the social worker. It was reformed in January 1943, in co-operation with the Department of Social Study and Training of the University and has continued since that time. Its personnel are the Headmaster, who is chairman, the Infant Mistress, the School Doctor, the Assistant Director of Studies of the Department and the student visitors.

The work of the Committee falls mainly into three sections—(*a*) Co-operation with the School Medical Service. A social visitor attends at medical inspections and social problems are referred to her on the spot. In addition, visitors call at the homes of those who have failed to accept treatment or keep appointments with specialists in order to secure acceptance or attendance ; (*b*) Close liaison with

the Child Guidance Clinic is obtained by a psychiatric social worker attending the Care Committee meetings. This permits of the pooling of knowledge regarding the South Bridge children and period progress reports on those attending the clinic, a useful feature since they will eventually return to the sphere of the Care Committee; (*c*) Special social problems referred by the teaching staff, such as, unpunctuality, poverty, neglect, parental desertion or incipient delinquency.

The results have been so good that the Association of Headmasters and Headmistresses has asked for the scheme to be extended to other schools and, as an experiment, a woman welfare officer is to be appointed to a group of schools in a selected housing area.

F.—Co-operation with teachers and parents.

Such co-operation is essential and the value of team work is constantly stressed. It is found that co-operation of teachers is increased by class inspections. For a period of a year a nursery school teacher was seconded specifically to foster this co-operation.

Special reference must be made to the close co-operation of the head teachers of the special schools, which could not be bettered. Indeed, the School Medical Service considers itself fortunate in having its handicapped children cared for, not only from the educational but also from the sociological aspect, so thoroughly and so sympathetically.

TABLE I.

Total number of children examined at :—

	Systematic Examinations.	Other Systematic Examinations.
Nursery	354	...
5 year-olds	5,499	...
9 „ „	5,380	...
13 „ „	3,837	...
16 „ „	36	...
Various	...	31
Total ...	15,106	31
Other examinations :—		
Special Cases	15,095	
Re-inspections	2,695	
Total ...	17,790	

Treatment Advised.

Number of individual children inspected at systematic examinations, who were notified to parents as requiring treatment (excluding uncleanliness and dental caries) :—

Nursery	305
5 year-olds	4,412
9 „ „	4,592
13 „	3,342
16 „ „	34
Total	12,685

TABLE II.

Systematic Examinations.

Clothing.

	Number Examined.	Unsatisfactory.	
		Number.	Per Cent.
Nursery—			
Boys	185	...	...
Girls	169	...	...
Infants—			
Boys	2,744	1	·04
Girls	2,755	...	...
9-year-olds—			
Boys	2,545	1	·04
Girls	2,835	1	·04
13-year-olds—			
Boys	1,855	...	...
Girls	1,982	...	...
16-year-olds—			
Boys	20	...	...
Girls	16	...	...
Total ...	15,106	3	·02

Footgear.

	Number Examined.	Unsatisfactory.	
		Number.	Per Cent.
Nursery—			
Boys	185	...	...
Girls	169	...	...
Infants—			
Boys	2,744	1	·04
Girls	2,755	...	...
9-year-olds—			
Boys	2,545	9	·35
Girls	2,835	3	·12
13-year-olds—			
Boys	1,855	...	...
Girls	1,982	...	...
16-year-olds—			
Boys	20	...	...
Girls	16	...	...
Total ...	15,106	13	·09

Heights and Weights.

	Number Examined.	Average Height.	Average Weight.
Nursery—			
Boys	18	36·85	33·96
Girls	11	37·95	34·86
Infants—			
Boys	2,613	42·22	41·74
Girls	2,591	41·61	40·62
9-year-olds—			
Boys	2,426	51·24	62·75
Girls	2,654	50·92	60·99
13-year-olds—			
Boys	1,869	58·94	91·62
Girls	1,957	59·64	96·39
16-year-olds—			
Boys	22	65·69	126·18
Girls	43	63·89	124·97

Cleanliness of Head.

	Number Examined.	Nits.		Verminous.		Dirty.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Boys—							
Nursery	185	...	...	1	·54	...	...
Infants	2,744	79	2·88	5	·18	1	·04
9-year-olds	2,545	84	3·30	8	·31	2	·08
13-year-olds	1,855	66	3·56	...	...	7	·38
16-year-olds	20	...	...	...	...	..	...
Girls—							
Nursery	169	13	7·69	...	...	...	...
Infants	2,755	287	10·33	14	·51	6	·22
9-year-olds	2,835	339	12·97	8	·28	9	·32
13-year-olds	1,982	407	20·53	7	·35	22	1·11
16-year-olds	16	...	...	...	...	...	...
Total ...	15,106	1,275	8·44	43	·28	47	·31

Cleanliness of Body.

	Number Examined.	Dirty.		Verminous.	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	...	...	...	...
Girls	169	...	...	...	...
Infants—					
Boys	2,744	2	·08	1	·04
Girls	2,755	2	·08	...	...
9-year-olds—					
Boys	2,545	3	·12	...	...
Girls	2,835	1	·04	1	·04
13-year-olds—					
Boys	1,855	2	·11	1	·06
Girls	1,982	1	·05	1	·05
16-year-olds—					
Boys	20	...	...	...	...
Girls	16	...	...	...	...
Total ...	15,106	11	·07	4	·03

Condition of Skin.

(*a*) *Head.*

	Number Examined.	Ringworm.		Impetigo.		Others.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—							
Boys	185	...	...	...	...	1	·54
Girls	169	1	·59	...	...	...	...
Infants—							
Boys	2,744	...	...	12	·44	8	·29
Girls	2,755	...	...	14	·50	5	·18
9-year-olds—							
Boys	2,545	1	·04	5	·19	6	·24
Girls	2,835	5	·18	8	·28	4	·16
13-year-olds—							
Boys	1,855	6	·32	2	·11	2	·11
Girls	1,982	20	1·01	3	·15	20	1·01
16-year-olds—							
Boys	20	...	...	...	...	...	...
Girls	16	...	...	...	...	1	6·25
Total ...	15,106	33	·22	44	·29	47	·31

(*b*) *Body.*

	Number Examined.	Ringworm.		Impetigo.		Scabies.		Others.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—									
Boys ...	185	...	...	...	...	...	...	3	1·62
Girls ...	169	...	...	...	...	...		4	2·37
Infants—									
Boys ...	2,744	...	...	...	...	10	·37	37	1·35
Girls ...	2,755	...	...	2	·07	21	·76	43	1·55
9-year-olds—									
Boys ...	2,545	...	...	2	·08	16	·63	45	1·77
Girls ...	2,835	2	·07	...	..	18	·62	37	1·30
13-year-olds—									
Boys ...	1,855	...	...	...	...	7	·38	41	2·21
Girls ...	1,982	1	·05	...	...	8	·40	45	2·25
16-year-olds—									
Boys ...	20	...	...	...	...	...	...	2	10·00
Girls ...	16	...	...	...	...	...	...	2	12·50
Total ...	15,106	3	·02	4	·03	80	·53	259	1·71

Nutrition.

	Number. Examined.	Slightly Defective.		Bad.	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	10	5·41	3	1·62
Girls	169	8	4·72	1	·59
Infants—					
Boys	2,744	163	5·94	49	1·79
Girls	2,755	260	9·36	60	3·16
9-year-olds—					
Boys	2,545	268	10·53	66	2·63
Girls	2,835	316	11·16	78	2·73
13-year-olds—					
Boys	1,855	197	10·62	101	5·44
Girls	1,982	170	8·58	60	3·03
16-year-olds—					
Boys	20	3	15·00	...	...
Girls	16	...	...	...	...
Total ...	15,106	1,395	9·23	418	2·77

Teeth.

	Number Examined.	Mouth and Teeth Unhealthy.	
		Number.	Per Cent.
Nursery—			
Boys	185	5	2·70
Girls	169	2	1·18
Infants—			
Boys	2,744	173	6·30
Girls	2,755	171	6·16
9-year-olds—			
Boys	2,545	127	4·99
Girls	2,835	103	3·61
13-year-olds—			
Boys	1,855	102	5·50
Girls	1,982	93	4·65
16-year-olds—			
Boys	20	4	20·00
Girls	16	1	6·25
Total ...	15,106	781	5·17

Nose, Throat and Glands.

(*a*) *Nose.*

	Number Examined.	(i) Obstruction. (Observation).		(ii) Obstruction. (Adenoids).		(iii) Other conditions.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—							
Boys	185	...	...	13	7·03	1	·54
Girls	169	2	1·18	17	10·03	6	3·54
Infants—							
Boys	2,744	76	2·77	230	8·38	8	·29
Girls	2,755	69	2·48	208	7·49	3	·11
9-year-olds—							
Boys	2,545	8	·32	97	3·81	7	·27
Girls	2,835	15	·53	107	3·75	2	·07
13-year-olds—							
Boys	1,855	3	·16	29	1·56	1	·05
Girls	1,982	2	·10	23	1·15	2	·10
16-year-olds—							
Boys	20	...	...	...	...	...	...
Girls	16	...	...	...	...	...	...
Total ...	15,106	175	1·15	724	4·79	30	·20

(*b*) *Throat.*

	Number Examined.	(i) Tousils. (Observation).		(ii) Tonsils. (Operation).	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	14	7·57	22	11·89
Girls	169	5	2·95	16	9·44
Infants—					
Boys	2,744	183	6·74	267	9·73
Girls	2,755	178	6·41	233	8·39
9-year-olds—					
Boys	2,545	61	2·39	128	5·03
Girls	2,835	79	2·77	141	4·94
13-year-olds					
Boys	1,855	34	1·83	44	2·37
Girls	1,982	36	1·82	62	3·11
16-year-olds—					
Boys	20	...	...	...	...
Girls	16	...	...	...	...
Total ...	15,106	590	3·91	913	6·04

(*c*) *Glands.*

	Number Examined.	(i) Requiring Observation.		(ii) Requiring Operative Treatment.	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	4	2·16	...	...
Girls	169	...	...	...	...
Infants—					
Boys	2,744	34	1·24	1	·04
Girls	2,755	23	·83	1	·04
9-year-olds—					
Boys	2,545	13	·51	5	·19
Girls	2,835	9	·32	...	...
13-year-olds—					
Boys	1,855	5	·27	1	·05
Girls	1,982	7	·35	...	...
16-year-olds—					
Boys	20	...	...	...	...
Girls	16	...	...	...	...
Total ...	15,106	95	·62	8	·05

(*a*) External Eye Diseases.

	Number Examined	Blepharitis.		Conjunctivitis.		Corneal Opacities.		Strabismus.		Other Diseases.	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
Nursery—											
Boys ...	185	...	...	...	...	...	...	9	4·87	...	...
Girls ...	169	2	1·19	...	...	...	...	7	4·14	...	...
	354	2	·56	...	...	...	...	16	4·52	...	...
Infants—											
Boys ...	2,744	15	·55	...	...	10	·36	111	4·04	5	·18
Girls ...	2,755	14	·51	2	·07	1	·04	116	4·21	7	·25
	5,499	29	·53	2	·03	11	·20	227	4·13	12	·22
9-year-olds—											
Boys ...	2,545	17	·66	3	·11	1	·04	59	2·32	1	·04
Girls ...	2,835	16	·56	2	·07	2	·07	48	1·69	3	·10
	5,380	33	·61	5	·09	3	·06	107	1·99	4	·07
13-year-olds—											
Boys ...	1,855	6	·32	2	·10	...	...	18	·97	2	·11
Girls ...	1,982	6	·30	1	·05	2	·10	20	1·01	4	·20
	3,837	12	·31	3	·08	2	·05	38	·99	6	·15
16-year-olds—											
Boys ...	20	...	...	...	...	...	...	...	...	...	...
Girls ...	16	...	...	...	...	...	...	...	...	...	...
	36	...	...	...	...	...	...	...	...	...	...
Totals ...	15,106	76	·50	10	·07	16	·11	388	2·56	22	·15

Special Cases.

Of the 15,095 Special Cases, 148 had squints giving with the routine cases a total of 536. The corresponding numbers for 1944-45 were Special Cases 133, Routine Cases, boys, 165; girls, 177—total, 475.

(*b*) Visual Acuity.

	No. Examined.	6/6*c*		6/6*s*		6/9-6/12*c*		6/9-6/12*s*		6/18+*c*		6/18+*s*		Recommended for refraction.	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
9-year-olds															
Boys	2,545	47	1·84	211	82·94	61	2·39	231	9·08	16	·63	79	3·14	144	5·65
Girls	2,835	55	1·93	2,299	30·47	94	3·31	280	9·87	22	·77	85	2·03	157	5·54
13-year-olds															
Boys	1,855	23	1·24	1,555	83·83	41	2·21	133	7·17	27	1·45	76	4·09	86	4·64
Girls	1,982	17	1·85	1,636	82·54	60	3·03	156	7·87	25	1·25	88	4·44	101	5·05
16-year-olds															
Boys	20	...	...	17	85·00	1	5·00	2	10·00	...	...	...	...	2	10·00
Girls	16	...	...	12	75·00	1	6·25	2	12·50	...	...	1	6·25	2	12·50
Total	9,253	142	1·53	5,730	61·93	258	2·79	804	8·69	90	·97	329	3·56	492	5·32

Ears.

(*a*) *Diseases.*

	Number Examined.	Otorrhœa.		Other Diseases.	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	1	·54	...	...
Girls	169	1	·59	...	...
Infants—					
Boys	2,744	9	·33	9	·33
Girls	2,755	6	·22	4	·14
9-year-olds—					
Boys	2,545	14	·55	2	·08
Girls	2,835	14	·49	5	·18
13-year-olds—					
Boys	1,855	23	1·24	5	·27
Girls	1,982	10	·51	2	·10
16-year-olds—					
Boys	20	...	...	...	...
Girls	16	...	...	...	...
Total ...	15,106	78	·52	27	·18

(*b*) *Hearing.*

	Number Examined	Grade I.		Grade II*a*.		Grade II*b*.		Grade III.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—									
Boys ...	185	...	...	...	...	...	...	...	...
Girls ...	169	...	...	...	...	...	...	...	...
Infants—									
Boys ...	2,744	6	·22	1	·04	...	...	...	...
Girls ...	2,755	2	·07	1	·04	...	...	...	...
9-year-olds—									
Boys ...	2,545	16	·63	18	·71	...	...	...	...
Girls ...	2,835	21	·74	11	·39	1	·04	...	...
13-year-olds—									
Boys ...	1,855	8	·43	3	·16	...	...	...	...
Girls ...	1,982	2	·10	...	...	...	...	...	...
16-year-olds—									
Boys ...	20	...	...	...	...	...	...	...	...
Girls ...	16	...	...	...	...	...	...	...	...
Total ...	15,106	55	·36	34	·23	1	·01	...	...

Speech.

	Number Examined.	Defective Articulation.		Stammering.	
		Number.	Per Cent.	Number.	Per Cent.
Nursery—					
Boys	185	...	...	...	...
Girls	169	...	...	...	...
Infants—					
Boys	2,744	7	·26	3	·11
Girls	2,755	6	·22	...	...
9-year-olds—					
Boys	2,545	4	·16	4	·16
Girls	2,835	2	·07	2	·07
13-year-olds—					
Boys	1,855	3	·16	6	·32
Girls	1,982	1	·05	...	...
16-year-olds—					
Boys	20	...	...	1	5·00
Girls	16	...	...	...	...
Total ...	15,106	23	·15	16	·11

Mental and Nervous Condition.

	Number Examined.	(a) Backward.		(b) Dull.		(c) M.D. Educable.		(d) M.D. Ineducable		(e) Nervous or Unstable.		Difficult in Behaviour.	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
Nursery—													
Boys ...	185	...	...	...	...	...	...	1	·54	...	...	...	...
Girls ...	169	...	...	...	...	...	...	...	...	...	...	...	...
Infants—													
Boys ...	2,744	1	·04	2	·07	2	·07	...	...	3	·11	4	·15
Girls ...	2,755	...	...	1	·04	...	...	...	...	6	·22	2	·07
9-year-olds—													
Boys ...	2,545	3	·12	11	·43	...	...	...	...	6	·24	3	·12
Girls ...	2,835	...	...	6	·21	...	...	...	...	9	·32	2	·07
13-year-olds—													
Boys ...	1,855	1	·06	6	·32	...	...	...	...	2	·11	4	·22
Girls ...	1,982	2	·10	3	·15	...	...	...	...	...	...	...	...
16-year-olds—													
Boys ...	20	...	...	...	...	...	...	...	...	...	...	...	...
Girls ...	16	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	15,106	7	·05	29	·19	2	·01	1	·01	26	·17	15	·09

Circulatory System.

	Number Examined.	Organic Heart Disease				Functional Conditions.	
		Congenital.		Acquired.			
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—							
Boys	185	...	...	1	·54	...	...
Girls	169	1	·59	...	...	1	·59
Infants—							
Boys	2,744	3	·11	12	·44	6	·22
Girls	2,755	6	·22	7	·25	8	·29
9-year-olds—							
Boys	2,545	5	·20	8	·32	5	·20
Girls	2,835	2	·07	5	·18	3	·12
13-year-olds—							
Boys	1,855	2	·11	5	·27	...	...
Girls	1,982	1	·05	6	·30	5	·25
16-year-olds—							
Boys	20	...	...	...	...	...	...
Girls	16	...	...	...	...	...	...
Total ...	15,106	20	·13	44	·29	28	·19

Lungs.

	Number Examined.	Chronic Bronchitis.		Suspected Tuberculosis		Other Diseases.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—							
Boys	185	1	·54	...	...	7	3·78
Girls	169	2	1·18	...	...	6	3·54
Infants—							
Boys	2,744	34	1·24	2	·08	51	1·86
Girls	2,755	19	·68	...	...	33	1·19
9-year-olds—							
Boys	2,545	13	·51	...	...	17	·67
Girls	2,835	11	·39	1	·04	24	·84
13-year-olds—							
Boys	1,855	11	·60	1	·06	26	1·40
Girls	1,982	...	...	1	·05	8	·04
16-year-olds—							
Boys	20	...	...	...	...	...	...
Girls	16	...	...	...	...	1	6·25
Total ...	15,106	91	·60	5	·03	173	1·15

Deformities.

	Number Examined.	(a) Congenital.		(b) Acquired (Infantile Paralysis).		(c) Acquired (probable Rickets).		(d) Acquired (other causes).	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—									
Boys	185	1	·54	...	...	5	2·70	2	1·08
Girls	169	...	...	...	...	5	2·95	...	...
Infants—									
Boys	2,744	23	·84	4	·14	25	·91	31	1·13
Girls	2,755	17	·61	2	·07	17	·61	34	1·22
9-year-olds—									
Boys	2,545	11	·43	...	...	6	·24	32	1·25
Girls	2,835	10	·35	2	·07	2	·07	34	1·19
13-year-olds—									
Boys	1,855	9	·48	1	·06	10	·54	24	1·29
Girls	1,982	2	·10	2	·10	1	·05	20	1·01
16-year-olds—									
Boys	20	...	...	...	...	...	...	...	...
Girls	16	...	...	...	...	...	...	...	...
Total ...	15,106	73	·48	11	·07	71	·47	177	1·17

Infectious Disease.

	Number Examined.	Infectious Disease.	
		Number.	Per Cent.
Nursery—			
Boys	185	...	...
Girls	169	...	...
Infants—			
Boys	2,744	1	·04
Girls	2,755	4	·14
9-year-olds—			
Boys	2,545	1	·04
Girls	2,835	2	·07
13-year-olds—			
Boys	1,855	1	·06
Girls	1,982	...	...
16-year-olds—			
Boys	20	...	...
Girls	16	...	...
Total ...	15,106	9	·06

Other Diseases or Defects.

	Number Examined.	Other Diseases or Defects.		Individual Children Notified.		Notices Issued.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nursery—							
Boys	185	10	5·41	31	16·76	35	18·92
Girls	169	6	3·54	20	11·83	21	12·39
Infants—							
Boys	2,744	114	4·15	405	14·76	502	18·26
Girls	2,755	129	4·64	373	13·43	496	17·86
9-year-olds—							
Boys	2,545	82	3·22	383	15·05	475	18·66
Girls	2,835	122	4·27	401	14·27	578	20·39
13-year-olds—							
Boys	1,855	63	3·40	246	13·32	317	17·09
Girls	1,982	99	4·95	271	13·67	409	20·64
16-year-olds—							
Boys	20	...	...	1	5·00	2	10·00
Girls	16	...	...	1	6·25	1	6·25
Total ...	15,106	625	4·13	2,132	14·11	2,836	18·77

Average Heights and Weights.

	1936-37		1940-41		1941-42		1942-43		1943-44		1944-45		1945-46	
	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.	Av. Ht.	Av. Wt.
Nursery Boys	...	...	...	...	...	...	...	...	...	...	...	...	36·85	33·96
Nursery Girls	...	...	...	...	...	...	...	...	...	...	...	...	37·95	34·86
Infant Boys	42·5	41·6	42·99	42·83	44·06	41·19	42·25	41·74	41·97	41·61	42·31	41·97	42·22	41·74
Infant Girls	42·0	39·9	42·61	41·42	41·86	39·86	41·92	40·14	41·95	40·50	41·97	40·58	41·61	40·62
9-year-old Boys	...	...	51·63	61·16	51·08	61·56	51·06	61·67	50·86	61·86	51·11	62·39	51·24	62·75
9-year-old Girls	...	...	51·26	60·93	50·78	59·81	50·81	60·16	50·54	60·28	52·56	63·31	50·92	60·99
13-year-old Boys	*56·7	*79·6	59·19	91·45	...	...	59·10	91·72	58·65	88·33	59·15	92·16	58·94	91·62
13-year-old Girls	*57·3	*81·1	59·89	95·05	...	...	59·76	95·94	59·64	95·74	65·45	104·50	59·64	96·39
16-year-old Boys	...	...	...	...	59·19	91·60	...	...	67·48	130·52	...	...	65·69	126·18
16-year-old Girls	...	...	...	...	59·72	93·84	...	...	62·52	118·77	...	...	63·89	124·97

* (12-year-old children in 1936-37).

TABLE III.

Systematic Medical Examinations.

Group Classification.	Nursery.		5-year-olds.		9-year-olds.		13-year-olds.		16-year-olds.		Total.	
	No. Exam.	Per Cent.	No. Exam.	Per Cent.	No. Exam.	Per Cent.	No. Exam.	Per Cent.	No. Exam.	Per Cent.	No. Exam.	Per Cent.
I. No defect	223	63·0	3,537	64·2	3,525	65·5	2,522	65·7	23	63·9	9,830	65·1
II. (*a*) 6 12+ (better eye) with or without glasses	...	...	3	·1	199	3·7	193	5·0	3	8·3	398	2·6
(*b*) Mouth or teeth likely to cause ill-health	2	·6	93	1·7	50	·9	61	1·6	...	...	206	1·4
(*c*) Both (*a*) and (*b*)	...	...	1	·0	9	·2	1	·0	...	...	11	·1
Total	2	·6	97	1·8	258	4·8	255	6·7	3	8·3	615	4·1
III. Temporary illness only	57	16·1	1,005	18·3	958	17·8	601	15·7	6	16·7	2,627	17·4
IV. (*a*) Cure expected by treatment	67	18·9	753	13·7	540	10·0	339	8·8	...	...	1,699	11·2
(*b*) Improvement only by treatment	5	1·4	107	2·0	99	1·8	120	3·1	4	11·1	335	2·2
Total	72	20·3	860	15·7	639	11·9	459	11·9	4	11·1	2,034	13·4
Total number of children examined	351	100	5,499	100	5,380	100	3,837	100	36	100	15,106	100

TABLE IV.

Return of all Exceptional Children of School Age in the Area.

Disability.	At Ordinary Schools.	At Special Schools.	At no School or Institut'n.	Total.	
1. *Blind*	...	21(*a*)	...	21	(*a*) In Royal Blind School.
2. *Partially-sighted*—					
(*a*) Refractive errors ...	3	25(*b*)	...	28	(*b*) 3 in schools for physically handicapped.
(*b*) Other conditions ...	2	14(*c*)	...	16	(*c*) 2 in schools for physically handicapped.
3. *Deaf*—					
Grade I	813	...	...	813	
Grade IIa	457	...	...	457	
Grade IIb	91	110(*d*)	...	204	(*d*) Hard-of-hearing School, 74.
Grade III	1	56(*e*)	2	59	(*e*) Donaldson's, 45; St. Vincent's, 9; St. Giles, 2; Awaiting admission to Donaldson's, 5.
4. *Defective Speech*—					
(*a*) Articulation ...	31(*f*)	71	...	102	(*f*) Waiting list for special classes.
(*b*) Stammering	42(*f*)	36	...	78	
5. *Educationally Subnormal*—					
(*a*) I.Q. approx. 70-50	...	...	...	...	(*g*) Awaiting vacancies.
(i) Education Act ...	35(*g*)	674(*h*)	...	709	(*h*) 23 in Smeaton House.
(ii) M.D. Act	...	42(i)	...	42	(*i*) In Certified Institutions.
(*b*) I.Q. under 50—					
(i) Education Act ...	...	100(*j*)	15(*k*)	115	(*j*) Occupation Centre. (*k*) Awaiting vacancies.
(ii) M.D. Act	...	...	255(*l*)	255	(*l*) Notified to G.B.O.C. and P.A.
6. *Epilepsy*—					
(*a*) Mild	33	20	...	53	
(*b*) Severe	...	9(*m*)	...	9	(*m*) 2 taught at home; 2 in Epileptic Colony.
7. *Physically Defective*—					
(*a*) Non-pulm. T.B. ...	103	43(*n*)	18	164	(*n*) 31 in Bangour Hospital School; 6 taught at home.
(*b*) Gen. orthopædic ...	244	53(*o*)	10	307	(*o*) Challenger Lodge, 15; taught at home, 6; Fairmilehead, 5.
(*c*) Organic Heart Disease	90	27(*p*)	5	122	(*p*) 6 taught at home.
(*d*) Other causes	...	140(*q*)	49	189	(*q*) 27 taught at home.
8. *Multiple Defects*	Not recorded.				

Medical Treatment.

Minor Ailments:	Cases.	Total. Attendances.
(1) Cuts, etc.	4,736	13,328
(2) Ear diseases	893	3,821
(3) Eye diseases	655	1,873
(4) **Diseases of the Skin**:—		
Ringworm (scalp)	...	...
X-Ray treatment	...	...
Other treatment	...	...
Ringworm (body)	38	401
Scabies	4,070	20,516
Impetigo	1,208	2,874
Other diseases	1,101	4,654
	12,701	47,467

Orthopædic Clinic Treatments:—	Cases.	Attendances.
Orthopædic and postural defects ...	1,669	6,711

Scabies.

The number of persons infested continues to fall. It is proposed to close one of the seven treatment centres, and others will be closed as opportunity occurs The downward trend of cases is shown by the following table.

Year	Age 0–5 Years.	Age 5–15 Years.	Age 15+ Years.	All Ages.	Total Attendances.
1942 (ten months)	510	2,844	366	3,720	31,742
1943	607	3,504	1,066	5,177	37,900
1944	466	2,592	909	3,967	33,120
1945	297	2,087	473	2,857	23,472
1946	212	1,401	264	1,877	18,027

Note.—Figures in the above table are for calendar years: those under "Medical Treatment" are for the school session.

Psychiatrist's Statistics.

A.—For 3 years 8 months (1/12/42 to 1/9/46).

Cases referred	1,215	
Cases closed	779	
Of these 779—		
Adjusted	98	(12·5 per cent.)
Improved	264	(33·8 per cent.)
I.S.Q.	91	
*Transferred	326	

Followed up by P.S.W.

For six months	57
For one year	211
For two years	94
	362

* To other clinics, Educational Psychologist, other areas.

B.—Session 1945-46.

Psychiatrist—

Cases referred	347
Diagnostic interviews	322
Accepted for treatment	168
Treatment interviews	1,968
Waiting diagnostic interview ...	14
Waiting treatment	48
Failed to attend	11

Psychiatric Social Worker—

Interviews—

(*a*) Clinic	1,042
(*b*) Home	1,947

TABLE V.

Dental Inspection and Treatment.

No. of Children Inspected :—

Age.	Routine Examinations.	Special and Emergency Cases.	Totals.
5 years	449	300	749
6 ,, ...	2,712	217	2,929
7 ,, ...	834	397	1,231
8 ,, ...	775	373	1,148
9 ,, ...	2,891	319	3,210
10 ,, ...	883	334	1,217
11 ,, ...	782	305	1,087
12 ,, ...	1,920	178	2,098
13 ,, ...	808	252	1,060
14 ,, ...	237	166	403
15 ,, ...	44	50	94
16 ,, ...	...	7	7
Total	†2,335	2,898	15,233
No. requiring treatment	8,390	2,898	11,288
No. actually treated	4,938	2,898	7,836
No. of attendances for treatment	8,513	3,092	11,605
Extractions—Permanent teeth	1,915	1,460	3,375
,, —Temporary teeth	6,718	3,520	10,238
Fillings—Permanent teeth	5,146	332	5,478
,, —Temporary teeth	†27	53	180
General Anæsthetics	2,720	2,064	4,784
Local ,, ...	1,627	246	1,873
Other Operations :—			
Temporary fillings—Permanent teeth ...	124	406	530
Temporary fillings—Temporary teeth ...	26	33	59
Silver nitrate—Permanent teeth	278	74	352
Silver nitrate—Temporary teeth	825	329	1,154
Sealings	521	123	644
Gum treatment	252	362	614
Trimming	706	303	1,009
Cavities lined	5,170	350	5,520
Root-canal treatment	40	5	45
Advice given	25	304	329
Sundries	223	33	256

Half-days devoted to :—

Inspection	122
Treatment	1,933
No. of children treated privately	41
No. of absentees for treatment	2,993

Maternity and Child Welfare.

No. of mothers referred and inspected	91
„ „ treated	86
„ attendances made	391
„ extractions	603
„ fillings	36
„ scalings	25
„ dressings	36
„ general anæsthetics	95
„ local anæsthetics	78
„ impressions, etc., taken	144
„ dentures fitted	49
Time devoted to this scheme, expressed in sessions ...	65
Cost of dentures, as per scale	£100 19 0

No. of pre-school children inspected	65
„ attendances	67
„ extractions, temporary teeth	75
„ general anæsthetics	43
„ local „	1
„ dressings	13
„ teeth trimmed	33
„ applications silver nitrate	86
„ amalgam fillings	4
Time occupied, expressed in sessions	8

SPECIAL SCHOOLS AND CLASSES.

(*a*) **Physically Handicapped.**—There are three day schools for physically handicapped children and one residential school for delicate and convalescent children. In addition, there are six certificated teachers who visit at home children too physically handicapped to attend special schools. Each teacher has ten children under her charge and each child receives two visits per week. The teachers are on the staff, and the children are on the roll of Willowbrae Special School, the headmistress of the school being in charge of the scheme. The number of children in the day schools is slowly but steadily decreasing, but the number taught at home is increasing.

(*b*) **Partially-Sighted** children to the number of 34 are educated in Lauriston Special School; 22 refractive errors and 12 other conditions: in other special schools are 3 and 2 respectively. The numbers requiring special school accommodation are gradually diminishing.

Blind children to the number of 21 are maintained in the Royal Blind School, Edinburgh.

(*c*) **Deaf** children are maintained in Donaldson's School, Edinburgh (45) and St. Vincent's School, Glasgow (9), while 5 are awaiting admission.

(*d*) **Educationally Subnormal Children.**—There are six day schools and one special class with a total roll of 651, and a waiting-list of 35. The residential school at Smeaton House, roll 23, is to be closed shortly. The Occupation Centre has a roll of 100 with a waiting-list of 15. In addition, 42 children are maintained by the authority in certified institutions.

(*e*) **Speech Therapy** is given in special classes. There are 71 pupils with defective articulation and 36 stammerers, total 107, with waiting-lists of 31 and 42 respectively.

(*f*) **Middleton House,** near Gorebridge, accommodates 10 delicate and convalescent children.

Class Inspections.

These inspections, both by medical officers and by nurses, are more than cleanliness examinations as the analysis of defect notices given below shows; for each class-room, comments on hygiene—particularly heating and lighting—are asked and, during holidays, comments on the hygiene of the dining centres.

During the evacuation period the children inspected were divided into three categories: "Passed," that is, suitable for immediate evacuation: "Slight Defect," those who could be rendered fit in a few hours: and "Marked Defect," those who would require to be detained in hostels for some days or for whom special arrangements would be necessary.

This categorisation has been retained as giving a useful basis of comparison of non-routine inspections from session to session. The percentage figures for the last six sessions are given below.

	1910-1.	1911-2.	1912-3.	1913-4.	1914-5.	1915-6.
Examined	39,720	40,151	28,128	40,511	15,826	11,002
Passed	70·6	75·1	79·2	76·8	73·1	69·8
Slight Defect	21·3	18·8	16·2	18·5	21·3	25·1
Marked Defect ...	8·0	5·9	4·5	4·6	5·3	4·7

It will be noted that there is an increase in "slight defects." The analysis of these defects is as follows:—

	1914-15.			Percentage of Total Cards.	1915-16.			Percentage of Total Cards.
	Boys.	Girls.	Both.		Boys.	Girls.	Both.	
Inspected ...	20,136	25,480	45,826		19,241	24,761	41,002	
Dentist ...	310	550	890	9·7	538	659	1,197	12·4
Oculist ...	281	352	633	6·9	325	372	697	7·2
Aurist ...	82	108	190	2·1	75	84	159	1·6
General ...	686	904	1,590	17·3	736	1,084	1,820	18·9
Head ...	930	4,917	5,870	63·9	909	4,849	5,758	59·9
Total ...	2,319	6,831	9,150	99·9	2,583	7,048	9,631	100·0

While there has been a relative decrease in the proportion of Head cards to total cards, there has been an actual increase. In 1944-45 the percentage of Head cards of those inspected was 12·8 (5,870 out of 45,826), in 1945-46 it was 13·1 (5,758 out of 44,002).

The high percentages are partly due to the fact that classes known to be the least satisfactory are selected for inspection.

Child Guidance Clinic.

In view of the fact that, under the Education (Scotland) Act, 1945, "Child Guidance" will be, in future, predominantly educational and child psychiatry will, therefore, be part of the psychiatric service, the statistics given below relate only to the psychiatric aspect of the work.

This Corporation service began on 1st December 1942, prior to which date cases had been referred to non-municipal clinics.

The sources of referral of cases were, in descending order: School Medical Service, Social Agencies, Child Welfare Department, Courts, headmasters, parents, hospitals and general practitioners.

The figures given relate to the period 1/12/42 to 1/9/46.

Note: "I.S.Q." means not improved—usually due to lack of co-operation of parent.

"Transferred" includes to other clinics, to Educational Psychologist, and left district.

	Period of 3 years 8 months.
Cases referred	1,215
Cases closed	779
Of these 779—	
Adjusted	98 (12·5 per cent.)
Improved	264 (33·8 per cent.)
I.S.Q.	91
Transferred	326
Followed-up by P.S.W.—	
For six months	57
For one year	211
For two years	94
	362

AUDIOMETRIC TESTING.

This testing is carried out under the direction of the Headmaster of St. Giles' Special School for hard-of-hearing pupils, Mr Leslie E. Heath, B.Sc., who has kindly furnished the statistics given below.

Unfortunately, the audiometer is in need of overhaul and re-standardisation, and the makers, switching over from war work, are not yet in a position to do this or to supply new instruments.

A complicating factor is the increasing school population. The children are tested, about twenty in a group, in their own schools and the difficulty of securing a suitable room, large enough and free from extraneous noise, increases each year.

A.—Gramophone Audiometer.

The children tested are in three categories: the 8-year-old group, special cases referred, and those known to be defective who are re-tested annually.

(1) Eight-year-old group.—These are the children who will be medically examined in the succeeding session. So, those born in 1937, who will be routinely medically examined during 1946-47, were tested during the session 1945-46.

Any apparently defective are re-tested and if still defective, their names, and the degree of hearing loss, are passed to the medical officer for their school. The medical officer sees the children as special cases and, if necessary, refers them to the specialists. The records and progress reports are available when the children come up for routine examination in the following year.

(2) Cases submitted for special testing.—These, for the major part, are submitted because their class-teachers suspect a degree of deafness. Cases so submitted increased from 370 in 1941-42, to 559 in 1945-46. Of the latter, the resultant percentages were: normal, 68·8; Grade I, 17·1, IIA, 9·7, IIB, 4·4.

(3) Annual re-test of those previously found to be defective.—About 80 per cent. of the cases ascertained to be defective (1,289 by the end of session 1944-45) were re-tested. To these must be added the results of other groups: absentees from the 1936 group: cases referred by doctors and special school cases. This gives a total of 1,551 known defectives in primary schools. Of these, 105 were absent during this session's test: the remainder were graded: I, 56·2 per cent., IIA, 31·6, IIB, 12·2.

A point of some importance is emphasised by a re-test of 186 pupils whose hearing had returned to normal during session 1944-45. Of these, 76·9 per cent. remained normal and 32·1 per cent. had returned to the defective list. This is consonant with clinical experience in the effects of common colds in children who have suffered from otitis media and eustachian catarrhs, causing relapses to defective hearing.

B.—Pure Tone Audiometer.

This electric audiometer produces a series of waves of single frequencies from 128 to 4,096 cycles per second, each wave being constant. Both air and bone conduction can be tested. It is, of course, capable of use in individual cases only but a graph of hearing at the various frequencies—an audiogram—can be plotted. It is particularly useful in the diagnosis of high-pitch deafness and is in increasing demand by the specialists.

MEALS.

Meals were prepared at twelve centres; this number is being increased to fifteen—of which eight are attached to, or near schools. A special meal for nursery schools is also provided.

The total number of mid-day meals (including those for nursery schools) served during the session was 2,918,604 compared with 2,559,454 in the previous session and 2,014,991 in 1942-43.

Of the 17,000 pupils who received meals, 100 paid a modified charge and 2,100 (14·7 per cent.) received them free. This percentage, 14·7, compares with an average of 12 for the whole country.

The total cost was £122,033—compared with £91,949 and £74,200 for the two previous sessions—and income from parents was £46,929. The cost per meal was 5·8d. for food and 4·2d. for administration.

Nursery Meals.

The increase in nursery meals is shown in the following table :—

	Nursery Schools.			
	Corporation.	Voluntary.	Wartime Nurseries.	Total.
1942-43	32,301	62,783	81,083	176,167
1943-44	47,856	80,676	172,735	301,267
1944-45	47,565	82,689	207,216	337,470

MILK.

During the school session 10,554,028 one-third pint bottles were purchased by pupils at ½d. per bottle.

Pupils on the free-food roll received one bottle free daily and 26 others received free milk on the recommendation of school medical officers.

In addition, milk was on sale at schools during the holidays, the daily average sold being : Christmas 4,928, Easter 6,959, Summer 6,483. This is in addition to those receiving free milk.

The milk supplied pre-war was all T.T. Now some is Grade A and all is heat-treated.

Pre-apprenticeship Courses.

The students attending the School of Building and Crafts, numbering 131, and including several from other areas, are all examined to see that they are fit for the occupations of their choice. In addition, those taking the painters' course are tested for colour-blindness.

HOSPITAL ADMISSIONS.

Voluntary Hospitals.—Two difficulties arise in ascertaining the number of school children admitted to hospital during the session : several hospitals do not classify admissions into age-groups, and the figures available are for the calendar year as session numbers are not easily obtained.

For two hospitals the figures for the year 1945 were : 2—5, 343 : 5—15, 408 ; total 751 : for two other hospitals, birth to 12, 5,624 ; for a fifth, "all ages," 1,494. The most that can be said is : 7,869 children were admitted to voluntary hospitals in Edinburgh during 1945 and of these 343 were definitely of pre-school age though, probably, the number would be nearer 3,000.

Municipal Hospitals.—During 1945, children aged 2—15 admitted to the general hospitals numbered 506, and to tuberculosis hospitals 21. There were 5,272 children under 15 notified as suffering from infectious diseases (under 1 year, 451 ; 1—5 years, 3,633 ; 5—15 years, 1,188).

Sanitary Department,
Public Health Chambers,
Johnston Terrace,
Edinburgh, *July* 1947.

To
The Department of Health for Scotland and
The Right Honourable the Lord Provost,
Magistrates and Council of the City of Edinburgh.

My Lord Provost, Ladies and Gentlemen,

I have the honour to present the Annual Report of the Sanitary Department of the City of Edinburgh for the year 1946.

HOUSING.

Clearance Areas.

On account of the acute rehousing needs of a large number of families who are living in sub-let rooms or in overcrowded houses it has not been possible to recommence the clearance of groups of unfit houses which was so abruptly halted by the outbreak of war in 1939.

At that time there were 5 Clearance Areas affecting 338 houses, for which Orders had been made and were awaiting confirmation by the Department of Health. The further deterioration of these houses over a period of 8 years gives cause for anxiety and the position can only be alleviated by the building of a sufficient number of houses. The continued shortage of building materials and the nation-wide reduction of housing programmes, however, compels this important aspect of City improvement to be relegated for an indefinite period.

In 1939 the Local Authority had completed about 50 per cent. of the schemes for the eradication of unfit houses in the City but an examination of the present position indicates that many houses which were "border-line" at that time have now passed into the "insanitary and unfit" category.

Individual Unfit Houses.

During the year 12 houses were the subject of Closing Orders under the Housing (Scotland) Act 1930. These houses were rendered unfit for habitation through a partial collapse of the chimney heads and were dealt with as a matter of urgency.

Voluntary Undertakings not to relet houses for human habitation when they became vacant were accepted from the owners of 6 houses. Many owners find that the maintenance costs of insanitary houses are far in excess of the rents collected and would prefer to have the houses either closed or demolished.

The House-letting Department rehoused five families from unfit houses during the year.

Overcrowding.

The overcrowding of houses of 4-apartments and under throughout the City is still a matter of grave concern. In many instances the overcrowding has been increased by married sons or daughters who, through inability to obtain accommodation of their own, are compelled to live as sub-tenants with their parents. Certificates relative to overcrowding have been submitted to the House-letting Department on behalf of 2,331 applicants for Corporation houses during the year 1946.

By the efforts of the House-letting Department it was possible to obtain the removal of 696 families from overcrowded houses or sub-let rooms to Corporation houses.

Bug Infestation of Houses.

The scheme adopted by the Local Authority in 1934 to prevent the transference of bug-infested furniture to the new houses continues to give entire satisfaction. During the year the houses and household effects of 1,810 prospective Corporation tenants were examined by Inspectors of this Department and 116 or 6·4 per cent. of that number were found to be bug-infested. Since the scheme was put into operation 18,636 houses have been inspected, of which 3,187 or 17·10 per cent. have been found to be bug-infested.

The furniture from these bug-infested houses was removed in special pantechnicons to the fumigation station at Powderhall and there subjected to hydro-cyanic acid gas for a period of two to three hours. The bedding and bedclothes were treated in the steam disinfector. The furniture and bedding were thereafter delivered direct to the new houses. Since 1934, when this work commenced, 2,718 fumigations have been carried out, including 81 for the year under report.

Many complaints regarding bug infestation in old houses are received by the Department, and advice is given by the Inspectors as to the best means to adopt in ridding the premises of these vermin. It is hoped that the new insecticide D.D.T. will assist materially in reducing the incidence of infestation throughout the City.

Supervision of Rehousing Areas.

The houses in the rehousing areas were visited regularly by Sanitary Inspectresses, and the results continue to be most gratifying.

Close contact is made with the housewives, and by sympathy and understanding they are encouraged to adopt careful and cleanly habits. In course of the visits the following matters are noted :—

(*a*) The size of the family, including the number of male and female inhabitants, with the ages of children. Where serious overcrowding is found to exist, the House-letting Department is notified.

(*b*) Where sub-letting takes place, or any lodgers are kept, the matter is reported to the House-letting Department.

(*c*) The condition of each room, kitchenette, bathroom, etc., is observed and any matters requiring the attention of the occupier are pointed out and advice given where necessary.

(*d*) Particular attention is paid to the possibility of bug-infestation with a view to adequate measures being adopted.

(*e*) Any structural defects are noted and passed on to the City Architect's Department.

(*f*) The condition of the stairs and passages is closely observed and any departure from the cleaning rotation is brought to the notice of the defaulter.

(*g*) Any complaints received regarding alleged overcrowding, keeping of lodgers or sub-tenants, keeping of animals, or failure to wash stairs are investigated.

(*h*) The occupiers frequently ask advice about domestic and family matters which is given where possible, and provides opportunity for closer understanding between the Inspectresses and the occupiers.

During the year 17,971 visits were made, and the following table shows the condition of the houses at the end of 1946, as compared with the previous year :—

	Clean	Percentage of Total	Fair	Percentage of Total	Dirty	Percentage of Total	Total
31/12/45	8,010	92·39	607	7·00	53	0·61	8,670
31/12/46	9,379	93·13	663	6·58	29	0·29	10,071

Social Survey of City.

The Local Authority on 6th June 1946 decided on the recommendation of a Joint Sub-Committee of the Housing, Streets and Buildings and Public Health Committees, to make a social survey of the City. This Department was given the responsibility of supervising the work and a temporary staff of 128 persons was engaged for the purpose. A comprehensive questionnaire was prepared and the enumerators visited the houses and filled up the form on the spot.

The object of the survey was to enable the Corporation to plan its long-term housing policy and give the Town Planning Department detailed information for a comprehensive scheme of town planning. As a large amount of detailed statistics and tabular statements would be compiled from the enquiry forms the Sub-Committee decided that this information should be obtained by having the statistics transferred to a card for every house. This work was done by a London firm who specialise in the " Punched Card Accounting System."

Analysis of the cards will provide the following information :—

(1) Number of new houses required :—

(*a*) to abate overcrowding ;

(*b*) to accommodate families living in sub-let rooms ;

(*c*) to accommodate families living in unfit houses.

(2) Number of houses requiring to be built (*a*) for rent, (*b*) for sale.

(3) Number of houses with sub-standard sanitary accommodation.

(4) The general extent of the problem of reconditioning houses.

(5) Number in each family of (*a*) persons, and (*b*) units for calculation of overcrowding.

(6) Distances between residence and place of work.

(7) Classification of occupations.

(8) Number of houses in different type of structure :—

(*a*) Tenements.
(*b*) Flatted.
(*c*) Villas.
(*d*) Bungalows.
(*e*) Cottages.

(9) Details of overcrowding.

(10) Duration of residence in Edinburgh and place of origin.

(11) Population in age groups.

(12) Schools attended by children.

It is hoped that this Report will soon be ready, and meanwhile the Register of houses with a rental of £45 and under kept by this Department in terms of the Housing (Scotland) Act 1935 has been brought up to date and new record cards prepared.

GENERAL SANITATION.

Major Improvements.

Prior to the era of the Great Wars, major improvements of a sanitary nature in dwelling-houses were required by Public Health Authorities either under the provisions of the Public Health (Scotland) Act 1897, where such premises or part thereof were of such a construction or in such a state as to be a nuisance or injurious or dangerous to health, or, in terms of the Housing Act 1909, which enabled the Department to call upon owners to carry out repairs and improvements, in order to render houses, in all respects, reasonably fit for human habitation.

In those days the provisions of these Acts were freely operative, and much good work was thereby accomplished in old tenemental properties involving the renewal of drains, soil and sink waste pipes, the abolition and replacement of old iron sinks and closets by earthenware appliances ; the incorporation of additional sinks and water-closets into properties where these appliances were used in common by several families ; the lighting and ventilating of dark internal water-closet apartments ; the opening up of dark, unventilated, internal bed-closets used for sleeping purposes ; the introduction of " main " service water taps for direct supplies of drinking water in place of storage cisterns situated in water-closet apartments, coal cellars, and other objectionable places,

thus rendering the water supply liable to contamination ; repairs to leaking roofs ; the introduction of sub-floor ventilation and proofing of walls against dampness in ground floor houses ; also the re-pointing of external walls and the carrying out of repairs generally to doors, floors, and windows. In connection with many of those properties, back greens had to be resurfaced with concrete and drained, as the absorbent surfaces of earth and ashes, where under much usage, were churned into a sea of mud and large areas were often completely submerged under sheets of stagnant water during prolonged periods of inclement weather.

Sub-standard Houses.

World War No. I, however, left such a legacy of overcrowding that the modernisation of sub-standard properties, lacking bath-rooms, modern sanitary conveniences, scullories and larders was impossible of achievement owing to the want of alternative accommodation for the temporary rehousing of tenants displaced while houses were under reconstruction. The more urgent need of the erection of an equivalent number of houses for those condemned or demolished under slum clearance schemes also left the problem of sub-standard houses untouched.

It could have been claimed by this overcrowded and deserving class of occupiers in sub-standard houses that their families were equally in need of modern dwellings and that they were perhaps more favourably circumstanced, financially and otherwise, to face the higher costs of furnishing and travelling to Corporation houses than many of the tenants in slum properties. In some cases the occupation of reconstructed sub-standard dwellings by tenants of slum properties with meagre financial resources would have been a more evolutionary process in housing and rendered greater satisfaction by meeting this dual need.

Fortunately the report by the Scottish Housing Advisory Committee recognises the full importance of modernising sub-standard properties, and its suggestion, amongst others, to local authorities to reserve some of their houses as temporary quarters for families whose houses are in need of modernisation is one which would enable this work to be resumed by the Sanitary Department after having been frustrated for this and other reasons.

Nuisances and Structural Defects.

The Department had to content itself with improvements of a lesser nature, and during the year the total number of structural defects and nuisances dealt with in houses or other premises was 8,515. Of these, 3,474 or 40·8 per cent., were intimated by citizens, 441 or 5·2 per cent. were notified by other City Departments, and 4,600 or 54·0 per cent. were discovered and reported upon by the District Sanitary Inspectors.

Respecting sanitary appliances, 37 modern water-closets were introduced or substituted for old or obsolete closets, while 67 water-closets were improved or repaired. Choked water-closets required to be cleared in 45 cases, and the number calling for cleansing was 55. New water-closet apartments had to be provided in two instances. The number of insanitary sinks abolished was 18, and earthenware sinks and tubs renewed or introduced totalled 23. Wood-

work surrounding sinks and tubs had to be repaired or renewed in 58 instances. Chokages cleared in such appliances numbered 17. Eight wash-hand basins were renewed or installed.

With the object of increasing the provision of water-closets and indoor water supply for existing houses, a circular was issued by the Department of Health in 1925 urging that a survey should be undertaken and that thereafter full use should be made of statutory powers to require provision, where practicable, of sufficient sanitary conveniences.

In Appendix 4 the position is given as it prevailed in 1925, and the progress accomplished is shown up to the year 1938, since when the actual position at present is not known, due to the intervention of the war. The figures obtained, however, from the social survey carried out in 1946 are included for comparative purposes.

Drainage systems found choked or requiring repair inclusive of soil, sink waste and rain water pipes, totalled 264. The safeguarding of the domestic water supply in 423 cases necessitated the cleaning or covering of 374 cisterns and the repairing of 49 water pipes.

In all, 410 series of repairs were effected to houses. These included repairs to roofs, floors, doors, windows, grates, hearths, boilers, coal bunkers, and plasterwork.

Nuisances in houses totalled 1,221, and had relation to offensive smells, smoky vents, dampness, overcrowding, eats, dogs, vermin and other matters.

Unsatisfactory conditions due to neglect by tenants in the regular washing and sweeping of common stairs and passages were reported in 588 instances, and eats and dogs were responsible for an additional 153 stair nuisances, totalling in all 741 complaints.

Nuisances arising from accumulations of rubbish, garbage, manure, and other refuse totalled 4,151.

Details of nuisances abated and improvements effected are tabulated in Appendix I, and these entailed 19,925 inspections.

Dust Nuisance.

In recent years a much wider market has opened up for supplies of sawdust, particularly sawdust of the quality of the finest flour. This has necessitated the introduction of grinding plants into sawmills for the production of wood flour, which was in much demand for war purposes, and prior thereto for the manufacture of linoleum. Its use has now extended into the field of plastics, and mills are working day and night to meet the needs of extended markets. This development in the industry came to the notice of the Department through numerous complaints being received from residenters living in close proximity to one of these mills. The nuisance complained of was that fine dust was gaining access to their dwellings and polluting everything therein. Investigations confirmed the escape of the dust from a mill, the proprietor of which had every sympathy with the complainants. He was at a loss to find a satisfactory remedy to prevent the escape of this fine dust from his premises, and was

particularly anxious to prevent nuisance and not suffer unnecessary economic loss from the escape of his product. Suction plant had been installed, but even with the greatest of care and supervision in the production and handling of the material, the plants were liable to choke at times and cause considerable nuisance. Under certain weather conditions, too, it had been found impossible to prevent the dust-laden atmospheres of parts of the mill from being wind-borne to the complainants' houses, into which, despite the closure of windows, its ingress was unprevented through the pressure of the prevailing westerly winds. The proprietor has co-operated with the Department in every way to mitigate the nuisance and has willingly put the problem into the hands of an expert engineering establishment, who are to proceed with a scheme for the trapping of the dust. It is anticipated that the plant for this purpose will be in operation before the end of this year.

Fire Nuisance.

Nuisances due to combustion of refuse which gives rise to smoke and smells are frequently of a temporary nature, particularly where private garden refuse is the object of incineration. With reasonable care and favourable weather conditions, however, these operations should give little cause for complaint. Outbreaks of fire in public refuse tips seldom occur where tipping is controlled and under strict supervision. Unfortunately this is not always the case where private refuse tips are in use, and often such tooms are a source of annoyance to the occupiers of premises in the neighbourhood, due to intermittent and protracted fires breaking out, which give rise to pungent fumes and smoke. Over a period of two years a private quarry tip within the City, where trade waste, ashes and other refuse were deposited, has given the Department much concern in this respect. The nuisance originally complained of arose from the smouldering of the material, including a considerable quantity of rubber. Upon inspection large fissures were observed on the surface of the toom, from which smoke and odours of burning rubber were issuing. Observations also disclosed that hot ashes were deposited from time to time, including such combustible material as wooden staves, hungs, and trimmings.

Immediate action was taken to bring this objectionable state of affairs to the notice of the firm of contractors concerned. Assurances were received that progressive measures taken to cope with the nuisance would prove satisfactory and that the position had considerably improved. Although however a long period of time was given to permit of adequate measures being taken, the nuisance continued and it was found necessary to take statutory action. In reply the firm admitted that the position was very baffling, and stated that in the past they had never failed to control their tooms ; that all they had been able to do with the fire so far was to isolate it and break it up ; but claimed it to be a shadow of its former self. They stated that the temperatures of the toom were expected to return to a safe condition at an early date, and only a few weeks would suffice, granted favourable weather conditions, to bring the burning portion of the toom to a normal condition. Several weeks later, however, the smouldering and fumes continued. Consequently the firm were informed that as no improvement had been effected the offence was being reported for prosecution. In reply the contractor indicated that a recent

effort had been made to obtain excavation soil for smothering purposes, and also disclaimed liability. Meanwhile the firm was duly reported to the City Prosecutor. At the hearing in Court the Counsel on behalf of the firm agreed in substance with the charge lodged and, on request, was granted an extension of time to deal further with the nuisance. This had later to be extended due to the severe winter conditions.

Noise Abatement.

Under the Edinburgh Corporation Order 1933 power is given to the Local Authority to require the best practicable means to be taken for the prevention or mitigation of any excessive or unreasonable or unnecessary noise which may be occasioned in the course of any trade or business, where such noise is injurious or dangerous to health. In operating the restrictive terms of this section due regard has also to be paid to the costs involved in preventing or mitigating excessive noise. Action by the Department, therefore, is very much circumscribed.

Industrial noise nuisances which frequently give rise to complaint are invariably caused during the operation of nightshifts to overtake pressure of urgent work, and even where firms arrange to undertake the heaviest part of the work during the day the noise necessarily involved during the night still leaves cause for just complaint in some cases. In these instances little or no relief can be given until such time as these emergency shifts are no longer required. Where nightshifts are the regular practice in industry, the zoning of such trades would appear to be the only solution to the problem.

In all, 53 complaints were received of noise nuisances. Many of these were due to businesses carried on in shops situated under houses in tenements, such as bakers, butchers, dairies and other trades. The representations made by the Department on behalf of the complainants, where the handling of equipment and use of machinery and plant caused the complaints, were usually sympathetically received and the co-operation of the owners of these businesses was readily given, with the result that in most cases it was possible to have matters adjusted in such a manner as to avoid any further cause for complaint.

Places of Public Entertainment.

Theatres, picture houses, and other places of public entertainment were visited frequently by the District Inspectors to see that they were being kept in a reasonably hygienic condition. It was found generally that satisfactory attention was being paid to cleanliness and other matters and that due attention was being given to the ventilation of the buildings.

Offensive Trades.

The offensive trades registered within the City comprise 3 tanners, 8 skin and hide factors, 1 gut scraper, 1 glue and size maker, 1 soap boiler, 3 tripe cleaners, 5 manure manufacturers, and 2 tallow melters, making a total of 24. Inspections showed that the provisions of the bye-laws requiring the prevention of offensive effluvia, the inoffensive disposal of obnoxious waste, the lime-washing of walls, the cleansing of floors and utensils, and the thorough flushing of the drains were being observed.

LODGING-HOUSES.

Common Lodging-Houses, etc.

The number of lodging and other houses controlled by local bye-laws is shown in Appendix 5.

Regular inspection was made to see that the terms of the bye-laws were being observed.

The attention of the owners of one large hostel for men lodgers had to be called to the insufficiency and insanitary condition of the water-closets, wash-hand basins, wash tubs, baths, etc., and to the obsolete condition of the kitchen equipment. As a result plans and specifications were prepared for the necessary reconstruction of the premises to provide for the introduction of modern sanitary appliances and improved kitchen arrangements and to enlarge the premises for an increased number of lodgers. The plans also provided for a new house for the superintendent. Negotiations are still in progress for the necessary permit to proceed with the work.

VERMIN REPRESSION.

Rat Destruction.

During the year the campaign for the destruction of rats was continued without abatement. There were 686 complaints from members of the public of premises infested by rats, and a further 38 infestations were reported by Inspectors. In every case detailed inspections were made and the occupiers advised as to the most suitable measures to adopt in order to deal with the vermin. In the course of the year 650 infestations were abated. Rat-proofing is an important factor in dealing with infestations in buildings, and, in spite of the shortage of labour and material, 264 items of repair work were executed in connection with rat complaints, and 32 accumulations of rubbish removed. As in the past, the City Engineer's Department has given ready co-operation in dealing with defective drains and sewers.

The presence of rats is often encouraged by people throwing food over the windows "to feed the birds," and also by the public mis-use of waste food bins provided throughout the city by the Cleansing Department. The co-operation of the public in preventing these nuisances would be of considerable help in mitigating the rat menace. Domestic poultry keepers, too, are not altogether blameless. The simple precautions of removing surplus food every evening from the hen-runs, and of raising the hen-houses at least 15 inches from the ground, would do much to prevent infestations. In a number of cases it has been necessary to have the site of hen-runs changed, and in extreme cases to insist that the practice of keeping poultry should be discontinued.

As in the war years, this Department has co-operated with the Department of Agriculture for Scotland in organised rat destruction work. A comprehensive survey of the suburban area was made, including all the farms, piggeries, refuse tips and watercourses, and the farmers and other occupiers co-operated in the rat destruction drive which followed. The final results of this scheme

showed that 4,130 rats were killed in traps, and in addition 1,500 poison baits were taken. Concurrently with this work, Midlothian County Council carried out a similar campaign covering a two-mile belt beyond the city boundary.

Later in the year a scheme embracing the whole of the Leith area was organised. This part of the city was previously treated in 1945, and it is encouraging to note that in the "repeat" scheme in 1946 there was a reduction both in the number of premises infested and in the degree of infestation of approximately 50 per cent. There was also a small scheme in the Leith Street area where infestations were found to be so slight that only 70 rats were trapped.

A considerable amount of rat destruction was also carried out in individual premises throughout the city, and the following table gives the totals for all work done in co-operation with the Department of Agriculture for Scotland, including organised schemes :—

Premises infested	543
Premises treated by Department of Agriculture rat catchers	303
Number of rats trapped or gassed	9,173
Number of rats estimated poisoned	7,500
Total poison baits laid	27,000

SMOKE ABATEMENT.

The shortage of supplies of good quality fuels of the semi-anthracite and navigation type is one of the chief difficulties experienced at the present time by many industrialists. This results in poor quality or unsuitable coal being used in many boiler plants and this, together with a widespread need for plant replacements and extensions, has tended to increase industrial smoke emissions. The only redeeming feature in smoke abatement is the reduction in the volume of smoke from domestic chimneys enforced by restrictions placed upon the supplies of household coal by the Ministry of Fuel and Power.

Atmospheric Pollution.

Investigation of atmospheric pollution is undertaken in co-operation with the Department of Scientific and Industrial Research. For this purpose four deposit gauges are stationed as follows : One at Leith Links, one at Glencorse, one at the Public Health Chambers, and one at the Astley-Ainslie Institute. From reports submitted by the City Analyst the monthly records of deposits of total solids together with the rainfall are shown in Table Appendix 6.

Educational Measures.

Lectures on the domestic and industrial aspects of the smoke problem were given by the Smoke Abatement Inspector to various interested associations. A series of lectures under the auspices of the Ministry of Fuel and Power were again held in the Heriot Watt College and were well attended by boiler attendants and engineers. While the main object of these lectures was fuel economy, the instruction given in the art of fuel firing will no doubt help to revive the anti-smoke conscience which prevailed prior to the war.

FACTORIES ACT, 1937.

The number of inspections of factories with power was 1,396, and of factories without power 235, a total of 1,631. Improvements effected under Part I, Health (General Provisions) of the Act numbered 709, which included 283 in bakehouses. There were also 28 miscellaneous improvements and repairs.

The continued restriction in the supply of labour and materials had an adverse effect on the number of improvements, and only the more pressing of these were carried out.

Since employees are no longer being directed to factories by the Ministry of Labour, or engaged temporarily in large numbers as during recent years, more settled conditions now obtain, and this is reflected in an improved standard of general cleanliness, particularly in connection with sanitary conveniences in the use of which more care is being taken. Another factor having a helpful influence in this respect has been the removal of black-out measures.

Reference is made in a following paragraph under "Bakehouses" to the installation of spray baths. It is interesting to note in this connection that a large industrial concern has also introduced bathing facilities for their female employees numbering about 25. This facility is greatly appreciated and fully taken advantage of, and the employees are allowed time off for bathing during working hours.

Bakehouses.

These continue to be regularly and frequently inspected with a view to maintaining a satisfactory standard of cleanliness and ascertaining whether the statutory requirements as to lime-washing, painting, etc., are being carried out. Oil paint is still in short supply but is being released for the necessary painting of bakehouses and arrears of this work are now being overtaken.

An interesting development has taken place during the past year, viz. the installation of spray baths for the workers in two bakeries and a smaller bakehouse. This is the outcome of propaganda on the part of the bakehouse inspector and is an innovation much esteemed by the employees. In one instance the employees are allowed time off for bathing during working hours and full use is made of this privilege. One of the larger bakeries of comparatively recent construction had spray baths installed when it was built, and it is encouraging to find that these other bakehouses, including one of average type and size, have been similarly provided.

A detailed statement in connection with the administration of the Factories Act is contained in Appendix 7.

SHOPS ACTS 1912-1938.

Shop inspections in order to ascertain if the provisions of the Shops Acts were being observed totalled 1,131.

Contraventions.

Compared with normal times, very few contraventions were noted either in regard to the hours of closing or selling articles outwith the permitted hours. The continued restricted supply of goods is apparently the reason for this.

Half-Holiday Orders and Closing Orders.

In March 1946, at the request of fish friers, an Order was made by the Local Authority which extended to fish friers (an exempted trade) the provisions of Section 4 of the Shops Act 1912 relating to the weekly half-holiday. This Order was confirmed in August by the Scottish Home Department, and in December the Local Authority made the Order—"The Edinburgh Fish Friers' (Shops Act) Weekly Half-Holiday Order 1946." This requires all fish and chip shops to be closed for the weekly half-holiday on Tuesday or on the substitute day (Saturday).

Winter Closing Hours.

The Defence (General) Regulations 1939, Regulations 60A and 60AB, remained in force. This had the effect of temporarily amending the Shops Act 1928 relating to general closing hours during winter months, and empowered the Local Authority by Order to vary the amended hours within limits.

The Local Authority exercised these powers, with the result that during the winters of 1945-1946 and 1946-1947, for the period November to March, the closing hour (with certain exceptions) was fixed at 7 p.m. for Saturday (the late day) and for the business of hairdresser and barber 7 p.m. each day. During the remainder of the year the general closing hours applied.

Christmas and New Year Periods.

There was no change in the closing hours as the Secretary of State did not exercise his power under the 1928 Act to suspend the general closing hours during these periods as was done previous to 1939.

Catering Establishments, etc.

The Order made by the Minister of Food in May 1942 under Regulation 55 of the Defence (General) Regulations 1939, is still operative. This Order *inter alia* provides that no food could be supplied between 11 p.m. and 5 a.m. in catering establishments, and the Order has the effect of nullifying the exemption from closing hours under the Shops Act 1928 of the sale of meals or refreshments as far as affected by this Order.

Arrangements for Health and Comfort.

Only the more urgent improvements were required as most of the essential materials were in short supply and labour was also scarce. The necessity of obtaining a licence before carrying out work of this class is an added difficulty.

Food Shops.

There have again been many applications to the local Food Control Committee for licences to commence or transfer business. As formerly, the applicants have been referred to this Department with a view to ascertaining whether the shops they proposed to occupy for the sale of foodstuffs complied with any statute, regulation or bye-law in force. As a result of this contact with the Local Food Executive Officer a considerable number of improvements have been effected but several of the shops were found unsuitable for occupation as food shops.

A detailed statement in connection with the administration of the Shops Acts is contained in Appendix 8.

SALE OF FOOD AND DRUGS ACTS, ETC.

During the year 924 samples of food and drugs were procured in order to test the nature, substance and quality of these commodities. Of these 362 were statutory or official samples and 562 were informal or test samples. The statutory or official samples represented 65 different articles of food and drugs.

With regard to the statutory samples, Dr. A. Scott Dodd, City Analyst, reported 336 or 92·82 per cent. to be genuine and 26 or 7·18 per cent. as failing to comply with the legal requirements.

Milk.

In these days of meagre rationing of milk, especially to non-priority consumers, stringent enforcement of the legal enactments against adulteration is essential in order to ensure that the restricted supplies are up to standard. With this object in view frequent samples of all milk supplies were regularly taken and submitted for chemical analysis. The total number of statutory samples taken was 168 and of these 147 were reported to be genuine. Of the remaining 21 samples 19 were adulterated either by the abstraction of fat or the addition of water or both and 3 were shown by the Freezing Point (Hortvet) Test to be naturally low in solids not fat.

The amount of extraneous water found in samples varied from 1 to 25 per cent. and the fat abstracted varied from 3 to 46 per cent. The average amount of milk fat, inclusive of adulterated samples, was 3·58 per cent. which is much in excess of the presumptive standard of 3 per cent.

Court proceedings were taken against six producers, each of whom pleaded guilty and fines totalling £95 were imposed.

The popular excuse offered for the presence of added water in milk was leaking milk-coolers. In four instances where the poor quality of the feeding stuffs for the animals was given as an additional explanation of the poor quality of the milk "appeal to the cow" samples failed to uphold the contention as the quality of the milk produced by the cows was well above the legal standard of 3 per cent. milk fat and 8·5 per cent. of non-fatty solids.

In one case a sample of mixed milk procured from a consignment of 84 gallons in course of delivery to a creamery was certified to contain 2·70 per cent. fat and 6·32 per cent. non-fatty solids, being a deficiency in fat of at least 10 per cent. and an addition of at least 25 per cent. of water which is equivalent to the sale of at least 21½ gallons of water as milk. The milking of this herd was supervised in the byre at the "evening" and "morning" milkings. The evening sample of the mixed milk of all the cows amounting to 23 gallons was certified to contain 3·92 per cent. fat and 8·86 per cent. of non-fatty solids; while the morning sample of the mixed milk of the same cows amounting to 34 gallons was certified to contain 3·80 per cent. fat and 8.92 per cent. non-fatty solids.

In another case a composite sample procured from a consignment of 68 gallons in course of delivery was certified to contain 3·20 per cent. fat and 7·57 per cent. non-fatty solids, an addition of at least 10 per cent. of water.

It was calculated that the consignment contained at least 7 gallons of extraneous water. Shortage of supply in feeding stuffs and a defective second-hand milk-cooler were put forward as an explanation of the poor quality of the milk sampled. At the invitation of the producer, the Food and Drugs Inspector visited the byres and, after supervising the milking of the herd at the "evening" and "morning" milkings, procured samples for analysis from the 25 gallons produced in the evening and the 29 gallons produced in the morning. The "evening" milk was certified to contain 3·78 per cent. fat and 8·81 per cent. non-fatty solids: while the "morning" milk was certified to contain 3·47 per cent. fat and 8.72 per cent. non-fatty solids.

Of 44 samples of milk taken from supplies to the city schools the average milk-fat content was 3·63 per cent.

Ice-cream.—During the year 57 samples of ice-cream were purchased from various manufacturers and vendors in the city and submitted to Dr. A. Scott Dodd, the City Analyst, for chemical analysis. In addition, 71 samples were sent to Professor Mackie for bacteriological examination. From the chemical and bacteriological standpoints the results showed a wide divergence in the quality of ice-cream. Of the 57 samples taken the fat content ranged from as low as 0·04 per cent. to as high as 10·14 per cent., 22 showed a fat content of under 0·50 per cent., 9 under 1·00 per cent., 10 under 2·00 per cent., and 5 under 3·00 per cent. In 11 samples the fat content exceeded that of the 3 per cent. standard of ordinary milk and rose to 10 per cent. in 3 cases. Of the 71 bacteriological samples, 29 showed very high bacterial counts and 42 had coliform bacilli present.

Restrictions in the use of normal ingredients affect the present quality of ice-cream, but it does not altogether account for the very low fat content found in many of the samples. An endeavour to spread limited supplies of available materials to cover a wider demand for ice-cream following the lifting of the war-time ban has contributed materially to the inferior quality.

The manufacturers of ice-cream whose products failed to achieve a reasonable bacterial standard were advised of the essential hygienic requirements in the manufacture and sale of ice-cream to ensure the highest possible standards of purity. Where assistance was requested to trace sources of contamination plant samples were taken and sterility tests made.

The extremely low fat content and the high bacterial counts found in many of the samples of ice-cream once again emphasised the urgent need for fixed standards.

Mince.—Six samples of mince were purchased from butchers' shops in the city. No infringements of the Public Health (Preservatives, etc., in Food) Regulations (Scotland) were found.

Sausages.—Twenty samples of sausages of various descriptions were procured for chemical examination. The City Analyst reported that no sample contained preservative in excess of the quantity sanctioned under the Public Health (Preservatives, etc., in Food) Regulations (Scotland), and 14 of the samples were found to be entirely free from preservative.

Rum.—One sample of rum was certified by the City Analyst to be deficient in alcoholic strength, being at least 38 degrees under proof, whereas it should have been not more than 35 degrees. Legal action was taken against the vendor, who pleaded not guilty but was convicted and fined £5. The respondent in this case applied for a Stated Case to the High Court of Justiciary, but latterly withdrew the application. The facts of the case were as follows :—

Upon the purchase of the sample no indication whatsoever was given that the rum was below the legal standard. Intimation of the result of the analysis to the merchant resulted in this Department being informed by the merchant that he had not been guilty of any misdemeanour. On mentioning the matter to his assistant, however, she openly admitted having, on the morning in question, taken some rum from the bottle and replaced water to make up the quantity. She had been feeling unwell and had taken the rum with aspirin tablets. The merchant claimed that he was not on the premises at the time and knew nothing of what had transpired.

The Sheriff held that while the rum was served to the Inspectors by a servant and the price paid to her the transaction was none the less a sale by the accused. The provision of the Act under which the question arose imposes an absolute prohibition against the sale of adulterated articles. The accused, though an innocent vendor, was therefore liable for the adulteration by his servant and was bound not only not to sell it himself but to take care that other people did not sell it for him in such a condition. In any event the Sheriff stated that the water added by that servant did not account for the rum being reduced from 35 to 38 degrees under proof.

Other Foods and Drugs.—One sample of self-raising flour was reported against for carbon dioxide deficiency, while another sample of this commodity was in fact plain flour. One sample of cream of tartar was sodium bicarbonate, and one sample of lard contained an admixture of stearin. The vendors of these articles were cautioned.

The Fertilisers and Feeding Stuffs Act 1926.—Inspections were made of premises throughout the city where fertilisers and feeding stuffs were prepared for sale or consignment, and seven samples of feeding stuffs and one sample of fertiliser were taken in the prescribed manner for the purpose of analysis by the Agricultural Analyst. The samples were all of satisfactory composition.

Rag Flock Acts 1911 and 1928.—Three statutory samples of rag flock were procured from bedding and rag flock manufacturers in the city, and submitted for chemical analysis. The City Analyst's reports showed that while one of the samples did not comply with the provisions of the Rag Flock Act the standard of cleanliness in the other two instances were within the limit specified by the Rag Flock Regulations (Scotland) 1912. In the three samples the amount of chlorine found were 16, 30 and 45 parts respectively per 100,000 parts of flock, compared with the maximum of 30 parts of chlorine allowed under the Regulations.

The sample which was adversely reported upon was taken from a consignment of 11 cwts. delivered the previous day. The whole of the consignment was ultimately returned to the manufacturers.

Two samples of filling materials other than rag flock used in the manufacture of bedding, and for which there is no statutory standard of cleanliness, were certified to contain 65 and 63 parts of chlorine respectively per 100,000 parts of material.

The long awaited report of the Inter-Departmental Committee on the Rag Flock Acts was published during the year. It deals very comprehensively with the various aspects of the subject and the Committee's recommendations if adopted in future legislation should go a very long way to preventing the manufacture, sale and use of dirty and unwholesome filling material. It is, therefore, to be hoped that the suggested new legislation, with standards for all classes of filling materials, will be expedited.

Pharmacy and Poisons Act 1933 and Pharmacy and Medicines Act 1941.—The number of applications received from persons or firms desirous of being registered by the local authority was 360, and these were duly registered. All the registered premises were visited to see that the requirements of the Acts were being complied with.

MILK TESTING SCHEME.

During the year a total of 2,089 samples were taken. Of these, 1,277 were submitted to bacteriological examination and 812 were examined for their keeping quality.

Conditions generally have improved. Depleted staffs and inexperienced workers at creameries and dairies, one of the problems of the war years, was being overcome and by the end of the summer more experienced workers were found at these premises.

Installation of new pasteurising plants, of the H.T.S.T. type, have been or are still being installed at all creameries. Other new equipment, such as bottle washers and fillers, are included and in several cases premises are in the midst of expansion.

In the months of July and August the presence of coliform contamination in pasteurised milk was rather persistent. This was due to post pasteurisation contamination which called for scrupulous cleanliness and attention to detail in the cleaning of all equipment and in the methods employed by workers during processing in order to overcome this fault. Since then, however, the position has been very satisfactory. In the autumn there were several complaints about glass fragments on the lip of the bottle mouth. An investigation was carried out to find the possibility of such a fault occurring during the handling of the bottles at the creameries. In one case it was found that a mechanical fault on a bottle washer tended to splinter or damage necks of bottles. This fault was immediately rectified and no similar defect was found.

The supply position of bottles has greatly improved and this has enabled firms to discard bottles with damaged necks which during recent years they were forced to use as long as possible. The danger of glass splinters and chipped bottle necks, accentuated by careless handling, will always be present so long as glass bottles are in use. Unbreakable containers or cartons, which do not have to be returned for re-use, are much to be preferred.

At the invitation of one creamery it was arranged to give talks to the personnel on the importance of scrupulous cleanliness of plant and person, the detrimental effects from neglect to observe such precautions, the elementary bacteriological aspect of milk and effects of undesirable organisms and possible sources of such contamination. A demonstration of plant cleanliness was also given, and in the laboratory the workers saw the practical side of the bacteriologist's work and how co-operation between themselves and the bacteriologist could ensure that the highest standards of cleanliness and efficiency were reached in processing of milk. Great interest was shown by all members of the creamery staff.

A proposal having been made to prescribe a standard test for non-designated milk, the methylene blue (Hiscox) test was applied to 181 samples of such milk from August onwards.

Despite difficulties, the milk testing scheme is gradually achieving its purpose, namely the improvement of the quality of the milk supply.

Particulars of the tests made are shown in Appendix 9.

PORT SANITARY INSPECTION.

Shipping Arrivals.—Vessels which arrived at Leith Docks and Granton Harbour from foreign ports numbered 773, representing 438,848 tons, while vessels which arrived from home ports numbered 2,018, representing 669,516 tons. The total number of ships including steamers, motor, sailing and fishing vessels which entered the Port Sanitary District from home and foreign ports was 2,791, with a total tonnage of 1,108,364.

Sanitation.—Under the Public Health (Scotland) Act 1897 it is the duty of the Local Authority to cause an inspection to be made for the removal of nuisances and to secure proper sanitary conditions on board ships lying within this district. In giving effect to this requirement the boarding, inspection and re-inspection of vessels totalled 1,042 and the insanitary conditions dealt with were 1,901, necessitating 38 written and 374 verbal intimations, the service of 1 notice and 617 copies of regulations. In the course of inspection many matters of an insanitary nature came under observation. For example, 356 floors, tables and decks were found in a dirty condition, 493 bunks and bedding were dirty and verminous, 274 dirty food lockers were discovered, and exception had to be taken to dirty partitions and ceilings in 186 cases, whilst 176 foul and choked closets, latrines, wash basins and scuppers were dealt with. These and other insanitary matters were brought to the notice of the Masters of the ships concerned for their attention.

The construction of new motor vessels and steamers has made great progress from a sanitary point of view. Generally the living conditions and crews' accommodation on board these vessels are much in advance of legislative requirements. Greater attention is being given to lighting, heating and ventilation, and the colour schemes in paintwork are designed to give brighter effects than prevail in the crews' quarters of the older type of vessel. In many of the older vessels the construction of the crews' quarters is such that proper cleansing will always be difficult.

The drinking water on board ships is generally found to be satisfactory, and the importance of having a pure and plentiful supply is fully appreciated.

Rat Destruction.—The total number of Certificates granted during the year to Masters of vessels was 65, of which 51 were exemption certificates. The total fees collected for these certificates was £107 12s. 6d. In 14 cases it was necessary to request fumigation measures to be undertaken for the destruction of rats. The total number of rats killed on board ships in port and on the quays and wharves was 844. Rat destructive measures were undertaken in the dock area by the Dock Commissioners' staff, and during the year 9,000 poison baits were laid in addition to continuous trapping.

Cleansing.—The Dock Commissioners continued to maintain a very high standard of cleanliness, the roads, wharves, sheds and sanitary conveniences being regularly and systematically attended to throughout their area.

In the execution of the duties of the Port Sanitary Department much valuable assistance has been received from H.M. Collector of Customs, the Leith Dock Commissioners, the Granton Official, the Board of Trade, and the various shipping companies and agents, to whom this opportunity is taken of expressing thanks for their esteemed co-operation.

Appendices 10 and 11 contain a detailed statement of the Port Sanitary work.

PROSECUTIONS.

In connection with the administration of the Acts, Orders, Regulations and Bye-laws relating to the work of the various sections of the Department it was necessary to institute legal proceedings in 12 cases. The total fines imposed amounted to £127 10s. Details of these prosecutions are given in Appendix 12.

STAFF.

I desire to express my cordial appreciation of the enthusiastic services rendered by all the members of the staff.

I am, My Lord Provost, Ladies and Gentlemen,

Your obedient Servant,

ALLAN W. RITCHIE, M.B.E., F.R.San.I., F.R.S.E.
Chief Sanitary Inspector.

NUISANCES ABATED AND SANITARY IMPROVEMENTS IN 1946.

Nature of Nuisance	Calton	Canongate	Newington	Morningside	Merchiston	Gorgie	Haymarket	St. Bernard's	Broughton	St. Stephen's	St. Andrew's	St. Giles	Dalry	George Square	St. Leonard's	Portobello	South Leith	North Leith	West Leith	Central Leith	Liberton	Colinton	Corstorphine and Cramond	Totals
Water-Closets :—																								
New apparatus substituted	2	1	...	...	1	2	....	1	1	2	2	6	2	4	1	....	....	2	1	4	1	1	3	37
Improved or repaired	2	3	...	1	2	1	3	1	..	3	..	12	2	8	9	1	2	4	2	6	....	....	5	67
Water-closets in a filthy condition and cleansed	1	2	....	2	....	....	1	1	.	2	7	17	4	3	3	3	3	2	....	2	....	....	2	55
Choked water-closets cleaned	...	4	....	....	....	2	1	4	....	1	1	8	1	2	6	2	1	4	2	2	....	..	4	45
New water-closet apartments provided	....	....	....	....	....	...	...	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	2
Sinks, Tubs and Wash-hand Basins :—																								
Insanitary sinks abolished	1	....	.	...	1	....	....	....	1	1	....	3	5	2	...	....	....	....	1	2	....	1	....	18
Earthenware sinks and tubs substituted	1	....	..	....	....	....	....	....	1	1	....	4	6	4	1	....	1	....	....	3	....	1	....	23
Repairs (woodwork, etc.)	2	3	2	1	4	2	....	3	1	....	2	8	5	9	4	1	1	....	2	7	....	....	1	58
Choked sinks, wash-tubs, etc., cleared	....	1	....	...	1	1	..	....	1	....	....	4	....	1	4	2	....	....	....	....	....	1	1	17
Wash-hand basins renewed or introduced	....	...	...	1	1	....	....	...	2	....	....	1	1	....	....	1	....	1	....	....	....	....	....	8
Drains :—																								
Choked drains cleared	3	7	7	5	3	5	1	11	5	6	4	13	17	11	16	7	11	17	7	12	1	2	14	185
Choked surface traps cleared	2	1	..	...	....	....	....	..	....	....	....	1	....	....	....	2	4	....	2	1	....	....	1	14
Drains repaired or renewed	....	....	....	..	..	....	....	..	....	....	....	..	..	..	....	1	....	....	....	....	....	....	.	1
Soil pipes repaired or renewed	1	2	....	2	1	....	....	....	2	....	1	1	2	1	2	....	1	1	....	....	....	....	....	17
Sinks, etc., waste pipes repaired or renewed	2	8	....	2	....	3	1	....	3	1	2	3	3	4	3	....	3	5	1	....	....	1	..	45
Rain water conductors repaired or renewed	....	....	....	1	....	....	..	....	....	1	....	....	....	....	....	..	....	....	....	....	....	....	....	2
Water Supply :—																								
Cisterns found dirty	7	13	20	16	7	36	15	13	26	7	22	8	19	26	9	18	18	16	7	41	22	2	5	373
Cisterns found without covers	....	....	....	....	....	....	....	....	..	....	....	..	1	..	..	..	....	....	....	....	....	....	....	1
Water pipes repaired	3	1	2	....	1	....	2	1	..	1	1	2	....	5	4	1	1	3	1	1	....	....	....	30
Houses temporarily without water supply due to burst pipes, etc.	1	2	....	....	1	....	1	.	.	1	....	3	2	2	....	1	1	....	1	2	....	....	1	19
Repairs to Houses :—																								
Floors, hearths, doors, etc., repaired	3	2	2	....	6	1	4	4	5	2	3	8	4	12	11	2	5	6	6	9	..	1	2	98
Windows and skylights repaired	5	8	2	3	3	6	2	1	5	5	1	21	9	12	13	2	3	6	1	9	2	....	....	119
Coal bunkers repaired or provided	....	....	....	....	....	1	..	..	....	....	....	1	....	1	1	....	....	....	....	1	....	....	....	5
Grates or ranges repaired or substituted	1	....	....	1	4	..	2	.	2	1	1	6	10	5	8	1	....	1	1	4	....	2	....	50
Walls and ceiling plaster repaired	6	2	1	1	3	3	1	4	4	4	3	13	8	17	15	3	7	4	1	4	3	1	3	111
Defective roofs repaired	1	1	..	....	..	..	....	.	..	..	..	.		4	4	2	....	2	....	3	....	....	....	17
Boiler of kitchen range renewed	1	1	2	....	....	1	....	. .	2	1	....	. .	1	1	....	....	....	....	....	....	....	....	....	10

NUISANCES ABATED AND SANITARY IMPROVEMENTS IN 1946—*continued.*

Nature of Nuisance	Calton	Canongate	Newington	Morningside	Merchiston	Gorgie	Haymarket	St. Bernards	Broughton	St. Stephen's	St. Andrew's	St. Giles	Dalry	George Square	St. Leonard's	Portobello	South Leith	North Leith	West Leith	Central Leith	Liberton	Colinton	Corstorphine and Cramond	Totals
Nuisances in Houses:—																								
Floors and bedding of houses in a dirty condition and cleansed by tenant	2	....	4	5	7	6	2	3	1	4	6	15	6	7	7	26	6	15	3	7	7	1	11	151
Nuisances due to bad smells in dwelling houses caused by escape of gas, dead vermin, etc.	4	2	3	4	8	2	5	4	3	10	11	17	3	11	6	7	1	6	1	4	3	....	4	119
Smoke in houses due to foul or defective vents	8	5	5	15	14	4	3	2	5	4	8	14	7	17	12	1	9	7	1	8	2	....	2	153
Damp houses remedied or abated	9	....	4	10	5	2	2	1	2	4	5	11	11	11	9	3	7	3	2	6	1	1	2	111
Overcrowded families removed to Corporation houses	21	28	14	6	10	66	16	27	12	23	24	31	20	17	26	56	45	25	24	21	34	8	31	585
Houses and shops flooded from defects in flats above	....	3	1	3	3	....	3	1	1	....	1	12	1	6	4	....	5	1	....	2	1	....	1	49
Animals kept in or in close proximity to dwellings	1	1	2	2	1	....	2	....	....	....	2	....	9	6	4	1	1	....	....	3	....	....	5	40
Houses distempered, papered or painted by tenants	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	10	1	....	....	....	....	....	13
Stairs, Passages, etc.:—																								
Stairs and passages in a dirty condition and cleansed by tenants	23	13	17	18	28	32	10	16	27	34	23	67	57	54	28	27	14	26	5	22	25	....	22	588
Dogs and cats committing nuisance in common stairs and back greens	5	4	10	6	5	5	3	3	8	4	1	12	14	20	14	10	7	5	2	5	4	..	6	153
General:—																								
Premises infested by rats	22	60	22	25	17	24	70	20	23	33	60	37	31	31	31	61	19	25	25	22	16	21	46	741
Premises infested by vermin other than rats	16	16	3	8	7	3	3	2	8	8	4	37	21	19	17	12	13	9	4	12	5	..	7	234
Accumulations of rubbish, garbage and filth removed from areas, roofs, cellars and vacant houses	9	165	10	10	5	5	1	70	185	211	245	47	330	222	182	106	10	19	3	4	1395	384	7	3625
Accumulations of manure near dwellings	1	2	1	..	2	....	4	....	..	2	....	....	2	..	3	..	....	....	..	1	..	1	2	21
Tenants casting garbage over windows	4	1	4	14	7	10	1	2	6	7	1	11	2	12	9	1	2	..	..	2	1	..	..	97
Noise nuisances	5	..	6	1	4	3	1	2	1	....	1	2	5	5	4	4	2	1	4	..	1	1	..	53
Miscellaneous nuisances	23	8	21	23	18	16	8	11	11	9	13	30	29	33	14	15	18	16	9	8	10	3	9	355
Totals	199	370	165	176	181	242	168	208	354	394	455	486	660	605	484	380	231	234	119	240	1534	433	197	8512

APPENDIX 2.

RECORD OF INSPECTIONS CARRIED OUT BY SANITARY DEPARTMENT.

Number of visits to :—

Common-Lodging Houses	193
Farmed-out Houses	13
Houses-let-in-Lodgings	7
Dairy Shops	727
Creameries—Pastourisation Plant, etc.	44
Ice-cream Shops	642
Restaurants	69
Fried Fish Shops	195
Public Houses	35
Hotels, Board Residences, etc.	323
Second-hand Furniture Shops	147
Offices	45
Schools	113
Show Grounds	87
Picture Houses and Theatres	22
Seasonal Workers Accommodation	14
Offensive Trades	54
Scabies, etc., Enquiries	360
Infectious Diseases Enquiries	580
Visits re Interments, Cremations, etc.	97
Corporation Houses—Visits by Lady Sanitary Inspectors	16,944
Houses measured for overcrowding and recommended to House-letting Department	2,331
Houses examined for bug infestation, etc., for House-letting Department	1,810
Nuisances	19,925
TOTAL	44,777

APPENDIX 3.

1946

NOTICES

Intimations of existence of nuisance served	295
Notices to remove nuisances served at the instance of the Local Authority	54
Intimations served in connection with the renewal of sinks and water-closets	29
Notices served in connection with the renewal of sinks and water closets	9
Notices delivered cautioning persons against casting garbage over windows	1,263
Notices served on occupiers failing to take due rotation of stair-washing and sweeping	274
Notices served for the cleaning of dirty areas, cellars, etc.	280
Notices served in connection with the painting of common staircases	198
Notices served in connection with the cleansing of water cisterns	82
Total	2,484

SUMMARY

Complaints by citizens	3,474
Complaints by other departments	441
Nuisances discovered and reported by District Inspectors	4,600
Total nuisances dealt with by Department	8,515

SANITARY CONVENIENCES USED IN COMMON.

	Year	Number used in common by the Tenants of										Total No. of Conveniences	Total No. of Houses
		2 Houses	3 Houses	4 Houses	5 Houses	6 Houses	7 Houses	8 Houses	9 Houses	10 Houses	11 and more Houses		
Common Water-closets	1925	4,561	1,572	951	148	67	27	30	—	—	—	7,363	19,276
	1938	3,660	1,072	530	65	17	1	3	—	—	—	5,348	13,114
Survey	1946	3,937	965	451	46	23	1	3	—	—	—	5,426	13,068
Common Sinks	1925	391	366	228	61	21	5	6	—	—	—	1,078	3,306
	1938	260	215	131	26	12	2	—	—	—	—	646	1,905
Survey	1946	790	280	164	23	19	—	—	—	—	—	—	—
Number of houses without sink or water supply within the house and without the use of a common sink	1925	—	—	—	—	—	—	—	—	—	—	—	936
	1938	—	—	—	—	—	—	—	—	—	—	—	233
Dry Closets	1925	131	18	9	2	—	—	—	—	—	—	160	362
	1938	26	3	—	—	—	—	—	—	—	—	29	61
Privy Middens	1925	—	—	—	—	—	—	1	—	—	9	10	152
	1938	—	—	—	—	—	—	—	—	—	—	—	—
Ashpits	1925	18	12	11	6	5	1	2	1	2	—	58	228
	1938	6	3	4	—	—	—	—	—	—	—	13	37

APPENDIX 5.

COMMON LODGING-HOUSES.

WARD	ADDRESS	ACCOMMODATION	
		Males	Females
	EDINBURGH.		
14	75 Grassmarket . .	373	—
14	89 Grassmarket . .	110	—
12	3 Guthrie Street . .	331	—
12	1 Pleasance . . .	213	—
12	85 West Port . . .	78	—
12	17 James Court . .	—	31
12	3 Merchant Street . .	—	80
14	5 and 7 Vennel . .	—	118
	LEITH.		
18	5 Parliament Street .	180	—
18	57 Tolbooth Wynd . .	127	—
18	2 Water Close . .	111	—
	Totals . .	1,523	232

FARMED-OUT HOUSES.

WARD	ADDRESS	No. of Houses	No. of Occupants
12	18 Blackfriars Street .	14	46
14	32 West Port (top flat) .	14	12
	Totals . .	28	58

HOUSES-LET-IN-LODGINGS.

WARD	ADDRESS	No. of Houses	No. of Occupants
12	1 and 3 Blair Street .	1	114
10	38 Broughton Street .	1	23
13	72 Grove Street . .	1	164
11	5 Leith Street Terrace .	1	15
14	31 Clerk Street . .	1	16
	Totals . .	5	332

APPENDIX 6.

Atmospheric Pollution—Monthly Record of Deposits

1946

Month	Station	M.M. Rainfall	Tons per Square Mile		
			Insoluble Deposit	Soluble Deposit	Total Solids
January	Astley Ainslie Institute	43	7·09	4·05	11·14
	Glencorse	84	1·37	7·70	9·07
	Leith Links	40	8·82	6·40	15·22
	Public Health Chambers	40	11·93	9·46	21·39
February	Astley Ainslie Institute	41	3·08	3·98	7·06
	Glencorse	58	2·29	8·35	10·64
	Leith Links	48	8·51	4·99	13·50
	Public Health Chambers	36	11·12	5·22	16·34
March	Astley Ainslie Institute	36	5·95	3·15	9·10
	Glencorse	62	1·33	5·03	6·36
	Leith Links	37	10·41	7·39	17·78
	Public Health Chambers	41	4·48	6·79	11·27
April	Astley Ainslie Institute	10	4·43	2·11	6·54
	Glencorse	28	2·08	5·99	8·07
	Leith Links	....	....	....	....
	Public Health Chambers	....	....	....	....
May	Astley Ainslie Institute	31	10·97	5·43	16·40
	Glencorse	50	2·67	5·51	8·18
	Leith Links	58	12·21	7·27	19·48
	Public Health Chambers	....	....	....	....
June	Astley Ainslie Institute	55	6·92	2·80	9·72
	Glencorse	67	1·81	6·67	8·48
	Leith Links	49	11·97	5·33	17·30
	Public Health Chambers	55	19·60	5·62	25·22
July	Astley Ainslie Institute	81	5·15	3·53	8·68
	Glencorse	119	3·46	8·83	12·29
	Leith Links	79	5·61	6·43	12·04
	Public Health Chambers	77	12·70	5·32	18·02
August	Astley Ainslie Institute	87	4·88	3·91	8·79
	Glencorse	125	1·33	9·07	10·40
	Leith Links	82	11·31	6·78	18·09
	Public Health Chambers	65	12·29	5·42	17·71
September	Astley Ainslie Institute	68	3·77	2·28	6·05
	Glencorse	146	1·85	7·80	9·65
	Leith Links	88	14·43	6·54	20·97
	Public Health Chambers	76	8·23	5·45	13·68
October	Astley Ainslie Institute	32	4·26	3·32	7·58
	Glencorse	26	1·57	4·04	5·61
	Leith Links	24	10·93	5·40	16·33
	Public Health Chambers	25	10·40	5·28	15·68
November	Astley Ainslie Institute	88	3·53	4·77	8·30
	Glencorse	138	0·48	8·79	9·27
	Leith Links	87	6·99	6·26	13·25
	Public Health Chambers	81	5·82	7·92	13·74
December	Astley Ainslie Institute	3	6·64	2·18	8·82
	Glencorse	99	2·36	4·55	6·91
	Leith Links	36	4·22	6·30	10·52
	Public Health Chambers	39	3·01	5·35	8·36

APPENDIX 7.

FACTORIES ACT 1937—STATEMENT FOR 1946

INSPECTIONS MADE		1,631
HEALTH (GENERAL PROVISIONS)—		
Cleanliness—		
Accumulations of dirt and refuse removed	16	
Floors cleaned	10	
Walls and ceilings cleansed (whitewashing, colourwashing, painting, varnishing or washing down)	21	
Temperature—		
Means provided or improvements effected	1	
Number of thermometers provided in workrooms	15	
Ventilation—		
Number of cases remedied where adequate ventilation of workrooms was not maintained	2	
Mechanical ventilation introduced	2	
Means provided for removing fumes and other impurities	2	
Improvements effected in general ventilation	4	
Sanitary Conveniences—		
Absence of sanitary accommodation; water closets introduced	1	
Additional water closets introduced	10	
Access to sanitary convenience arranged where mutual	3	
Urinals introduced	2	
New apartments constructed or reconstructed	11	
W.C. or urinal substituted	14	
W.C.s abolished owing to unsuitability or disuse	6	
Intervening ventilated spaces provided	10	
Separate and screened approaches provided	8	
Notices provided indicating convenience for each sex	20	
Lighting (natural) provided or improved	29	
Lighting (artificial) provided	49	
Ventilation provided or improved	6	
Walls and ceilings found dirty and limewashed, etc.	51	
Floors found dirty and cleaned	40	
Appliances found dirty and cleaned	42	
Choked water closets cleared	3	
Repairs to appliances, roofs, floors, walls, ceilings, doors, windows, etc.	48	
		426
Bakehouses—		
Walls and ceilings of bakehouses—limewashed, painted, varnished or washed down	57	
Storerooms limewashed, painted or washed down	37	
Water-closet apartments or cloakrooms painted or washed down	67	
Floors of bakehouses and storerooms cleaned	18	
Floors of cloakrooms and water-closet apartments cleaned	14	
Stair steps and passages, etc., cleaned	1	
Windows cleaned	11	
Sanitary appliances found dirty and cleaned	31	
Choked water closets cleared	1	
Accumulations of dirt and refuse removed	4	
Bakehouse tables and utensils cleaned	16	
Shelving, cupboards, racks, etc., cleaned	13	
Baking machines and steam presses cleaned	6	
Offensive smells, fumes, etc., abated	5	
Insect pests exterminated	1	
Courtyard surfaced	1	
		283
Miscellaneous—		
Sinks or washhand basins introduced or substituted	5	
Spray baths introduced	6	
Appliances repaired	3	
General repairs to roofs, walls, ceilings, floors, windows, etc.	14	
		28
Total		737

APPENDIX 8.

SHOPS ACTS 1912-1938—STATEMENT FOR YEARS 1939-1946

	1939	1940	1941	1942	1943	1944	1945	1946
INSPECTIONS MADE.								
Retail Shops, Wholesale Shops and Warehouses	4,201	2,113	1,081	814	708	846	726	1,131
Number of evenings on duty to check observance of Evening Closing Orders	23	5	4	2	1	....	..	.
Number of Saturday afternoons on duty to check observance of Weekly Half-holiday Orders	2	....	....	....	....	....	....	....
CONTRAVENTIONS REGARDING HOURS OF EMPLOYMENT, CLOSING ORDERS, Etc.								
Hours of Employment of Young Persons	14	2	1	2	....	1	1	....
Overtime	....	....	....	....	....	....	....	....
Intervals for Meals and Rest Periods	7	3	2	2	....	1	....	....
Restriction of Night and Early Morning Employment for Young Persons	5	2	1	....	....	....	2	..
Weekly Half-holiday for Assistants	8	3	..	....	....	2	..	....
Failure to observe Half-holiday Orders and Closing for Weekly Half-holiday	32	6	1	....		.	..	1
Failure to observe Evening Closing Orders or General Closing Hours	15	6	4	....	1	...	....	2
NOTICES, Etc.								
Failure to affix Form *re* Assistants' Half-holiday (1912 Act)	70	17	3	2	1	4	1	1
Failure to affix Form *re* Hours of Employment, etc. (1913 Act)	8	6	....	....	....	....	1	....
Failure to affix abstract of Act *re* Hours of Employment, etc.	58	14	1	1	1	12	1	....
Failure to keep Record of actual hours worked and intervals allowed	60	18	1	2	1	11	....	....
Failure to affix Notice *re* Seats for Female Shop Assistants	29	13	1	1	....	6	1	1
Failure to display Notice where shop is open for the carrying on of a certain Trade or Business (*i.e.*, Mixed Shops)	115	14	6	....	1	1	....	....
HEALTH AND COMFORT PROVISIONS.								
Ventilation—Improvements effected	32	6	3	....	....	1	2	17
Lighting—Improvements effected	9	2	1	....	....	....	....	6
Heating—Means provided or improvements effected	56	45	3	1	....	6	4	5
Suitable facilities provided where Meals are taken in premises	4	2	1	....	....	....	....	1
Seats for Female Assistants provided —Number of instances	5	2	....	....	....	....	....	1
WASHING FACILITIES.								
Water supply introduced	3	....	....	....	....	....	....	1
Main water supply provided	4	2	....	....	....	8	1	6
Sinks or wash-hand basins introduced	6	5	3	....	....	....	2	6
Earthenware sinks substituted	12	1	....	....	....	1	....	3
Sinks removed to more sanitary situation	3	1	....	....	....	....	....	5
Hot water supply provided	2	....	1	....	....	....	....	6
Repairs to appliances	27	5	3	....	....	5	....	4
SANITARY ACCOMMODATION.								
Water-closets introduced	12	5	3	....	....	1	2	5
New water-closet apartments constructed or re-constructed	23	11	3	....	..	..	2	11
Water-closets substituted (or replacements)	2	5	1	....	....	....	....	6
Water-closets removed to more sanitary situation	3	2	....	....	....	1	....	2
Separate sanitary accommodation provided for sexes	7	1	1	1	....	....	....	3
Intervening ventilated spaces provided	40	11	4	....	....	2	4	9
Lighting and/or ventilation provided or improved	29	16	7	....	1	....	3	17
Repairs to appliances, walls, ceilings, floors, windows, etc.	72	12	10	3	7	17	1	29
Dirty water-closets: cleansed or limewashed	32	25	5	2	2	4	1	9
Miscellaneous repairs, etc., in shops	21	7	1	2	4	6	1	17
CLEANLINESS.								
Dirty walls and ceilings—painted or limewashed	78	30	20	8	37	25	5	38
Dirty floors, etc.	40	11	11	1	6	8	1	12
Accumulations of refuse removed	41	13	17	1	7	10	....	22
Other nuisances remedied	19	6	5	1	....	1	1	7
Intimations served under Shops Acts	24	4	2	....	....	6	....	25
Notices served under Shops Acts	....	1	2	....	....	1	....	1
Notices served under Local and General Acts	....		2	....	....	2	2	2
Letters sent under Shops Acts	61	18	1	5	2	2	4	37
PROSECUTIONS.								
(*a*) Convictions	7	....	....	....	1	..	....	..
(*b*) Fines imposed (Total)	£3	....	....	....	15/-	....	....	....

APPENDIX 9.

MILK TESTING SCHEME

NUMBER OF SAMPLES TAKEN FOR BACTERIOLOGICAL EXAMINATION.

Certified (Bottled)	48
Tuberculin Tested (Bottled)	80
Tuberculin Tested (Bulk)	105
Tuberculin Tested (Schools)	28
Tuberculin Tested (Past.)	84
Tuberculin Tested (Past. Schools)	64
Pasteurised (Bottled)	163
Pasteurised (Schools)	21
Pasteurised (Bulk)	14
Heat Treated (Bottled)	62
Heat Treated (Schools)	16
Heat Treated (Bulk)	23
Plant Samples	87
Sterility Tests (Bottles)	219
Sterility Tests (Churns)	46
Sterility Tests (Equipments)	24
Ordinary Milk	130
Rail Milk	16
Biological (negative, 44 ; positive, 1 ; inconclusive, 2)	47
TOTAL	1,277

NUMBER OF SAMPLES EXAMINED FOR KEEPING QUALITY.

Methylene Blue Reductase :—	
Certified	42
Tuberculin Tested (Bottled)	81
Tuberculin Tested (Bulk)	83
Ordinary	425
Methylene Blue (Hiscox)	181
TOTAL	812

APPENDIX 10.

Port Sanitary Inspection—Annual Statement

Year 1946

Ships boarded and inspected	617
Re-visits made	425
Nuisances discovered	1,901
Communications written	38
Notices served	1
Verbal warnings	374
Ships fumigated or otherwise treated for vermin by owners	61
Fumigation certificates granted	18
Deratisation certificates granted	14
Deratisation exemption certificates granted	51
Local fumigation certificates granted	4
Rats exterminated	844
Ships provided with rat guards	596
Notices of regulations served upon Masters or Officers in charge	617
Nuisances abated	1,877
Rat destructive measures in the Dock area—Baits laid	9,000
Fees collected	£107 12 6

Nuisances Discovered

Dirty floors, tables, decks, etc.	356
Dirty bunks and bedding	493
Dirty partitions and ceilings	186
Dirty lockers	274
Foul closets and latrines	58
Foul wash basins	17
Foul sinks	5
Foul baths	3
Choked scuppers	24
Choked and defective latrines	10
Choked and defective wash basins	28
Choked and defective sinks and basins	31
Accumulations of garbage, refuse, etc.	56
Dirty fresh water tanks	26
Dirty and offensive bilges	93
Dirty galleys, food stores, pantries, etc.	35
Dirty wash places	38
Dampness in quarters	3
Insufficient light and ventilation	1
Ships without rat guards	24
Presence of rats and mice	30
Presence of cockroaches and beetles	23
Presence of bugs and fleas	32
Miscellaneous	55
Total	1,901

APPENDIX 11.

PORT SANITARY REGULATIONS—1933 TO 1945.

Edinburgh Port Health District.

(1) Amount of Shipping entering the Port in 1946—

	Number	Tonnage
(1) Foreign - - -	773	438,848
(2) Coastwise - -	2,018	669,516
(3) Total - - -	2,791	1,108,364

(2) Total number of vessels subjected to measures of rat destruction in 1946—

"A"

No. of Vessels subjected to measures of Rat destruction	On Ships		On Shore		No. of Rats found Infected with Plague	
	No. of Dead Rats recovered	No. of Rats examined bacterio-logically	No. of Rats destroyed other than on Ships	No. of Rats examined bacterio-logically	On Ships	On Shore
51	517	Nil.	327	Nil.	Nil.	Nil.

Species of rats recovered (*a*) On Ships—Black and Brown.
(*b*) On Shore—Brown.

"B"

No. of Vessels fumigated by S.O.2	No. of Dead Rats recovered	No. of Vessels fumigated by H.C.N.	No. of Dead Rats recovered	No. of Vessels in which poisoning, etc., was employed	No. of Dead Rats recovered	No. of Deratisation Certificates Issued	No. of Deratisation Exemption Certificates Issued
Nil.	Nil.	18	420	33	97	14	51

(3) Number of vessels (included in (2) above) deratised before discharge of cargo

Nil.

APPENDIX 11—*continued.*

"C"

PRECAUTIONS AGAINST PLAGUE

Particulars relating to vessels, infected or suspected or from infected ports.

Date of Arrivals 1946	Whether infected, suspected, or from infected ports	Methods of Rat Destruction			No. of Rats killed	Whether a Certificate of Deratization granted	Remarks
		S.O.2	H.C.N.	Traps or Poison			
Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.

No plague "infected" or "suspected" vessel, or vessel from infected ports arrived during the year.

"D"

Vessels other than those dealt with in Form "C" subjected to measures of rat destruction

No. of Vessels fumigated by $S.O_2$	No. of Rats killed	No. of Vessels fumigated by H.C.N.	No. of Rats killed	No. of Vessels on which trapping or poisoning were employed	No. of Rats killed	No. of International Certificates	Exemptions	Remarks
Nil.	Nil.	18	420	33	97	14	51	Ropes and hawsers rat guarded.

Report of Prosecutions instituted by the Sanitary Department during the year ended 31st December, 1946.

No.	Nature of Contravention	Act Contravened	Court Where Tried	Result
1	Adulteration of Sweet Milk	Food and Drugs (Adulteration Act, 1928, Sections 2 and 16.	Sheriff	£25 Fine.
2	Do.	Do.	Do.	£15 Fine.
3	Failure to comply with a notice requesting the removal of a nuisance, viz., disrepair of a sink cope.	Public Health (Scotland) Act, 1897, Section 20.	Burgh	£1 Fine.
4	Adulteration of Sweet Milk	Food and Drugs (Adulteration) Act, 1928, Sections 2 and 16.	Sheriff	£10 Fine.
5	Do.	Do.	Do.	£20 Fine.
6	Do.	Do.	Do.	£20 Fine.
7	Do.	Do.	Do.	£20 Fine.
8	Failure to cleanse common passage	Bye-laws for the cleansing of common stairs.	Burgh	£1 Fine or 10 days.
9	Do.	Do.	Do.	Admonished.
10	Do.	Do.	Do.	10/– Fine.
11	Adulteration of Sweet Milk	Food and Drugs (Adulteration) Act, 1928, Sections 2 and 16.	Sheriff	£10 Fine.
12	Failure to comply with a notice requesting the removal of a nuisance, viz., the defective condition of windows.	Public Health (Scotland) Act, 1897, Section 20.	Burgh	£5 Fine.

Summary of Prosecutions Instituted

No. of Prosecutions	12
Total Fines imposed	£127 10 0

VETERINARY DEPARTMENT.

REPORT BY THE VETERINARY INSPECTOR

MILK AND DAIRIES.

Milk and Dairies (Scotland) Act, 1914.—During the year regular visits of inspection have been paid to the dairies in the City registered under the Milk and Dairies (Scotland) Act, 1914, for the purpose of supervising the cleanliness of the dairy premises and the methods of milk production.

The Veterinary Inspector also visited 20 dairy herds during the year, and carried out clinical inspections on behalf of the Ministry of Agriculture and Fisheries.

At December 1946 there were 35 registered dairy herds within the City boundary. The average number of cows in these herds was 1,142. One certificate of registration was transferred to a new tenant and four certificates were cancelled.

Nine cows on registered dairy premises in the City which were found to be suffering from tuberculosis within the meaning of the Tuberculosis Order of 1938 were slaughtered.

Cattlesheds in Burghs (Scotland) Act, 1886.—In addition to the visits paid under the Milk and Dairies (Scotland) Act, 1914, already referred to, twice yearly visits were also paid by the Veterinary Inspector to 21 premises which were exempt from the Act, but licensed under the Cattlesheds in Burghs (Scotland) Act, 1886, and, on the first visit, 43 cows were clinically examined, and 53 cows on the second visit.

Mastitis.—During the year 23 cows with acute mastitis were found on clinical examinations made in the course of inspections of cattle in registered and exempt premises, and precautions were taken to ensure that the milk from those animals was not used for human food.

Milk (Special Designations) Order (Scotland), 1936-44.—Thirteen producer's licences for the sale of designated milk have been in force during the year, namely, one "Certified," one "Tuberculin-Tested," and eleven "Standard." The licence for the production and sale of "Certified" milk is held by the Royal Victoria Hospital Tuberculosis Trust, Gracemount Farm, Liberton, and that for the production and sale of "Tuberculin-Tested" milk by Mr J. A. Hamilton, South House Farm, Liberton.

Bacteriological Examination of Milk.—During the year, 307 samples of milk produced in the City were submitted to the Methylene Blue Test for keeping quality, and 20 of these samples failed to comply with the test.

Two hundred and ninety-three samples were subjected to the test for bacteriological standard, as follows :—

Certified Milk	9
Tuberculin-Tested Milk	9
Standard Milk	106
Ordinary Milk	169
	293

Four samples of " Standard " milk failed in respect of general bacterial count and 16 in respect of the presence of coliform organisms. Seven " Standard " samples failed in both tests. One sample of " Tuberculin-Tested " milk failed in both tests.

The licence held by one " Standard " producer was suspended due to repeated poor samples. In all other cases the faults were eliminated after reference to the producers concerned.

Bulk Milk Samples subjected to biological test for tuberculosis.—

		Negative	Positive	Inconclusive
Brought forward incomplete at the end of 1945	16	15	1	0
Tested and completed at 31st December 1946	66	62	3	1
Remaining under test at 31st December 1946	3			
	85			

This compares favourably with 1945 when roughly 10 per cent. of samples were found affected with living tubercle bacilli.

INSPECTION OF MEAT AND OTHER FOODS.

Under the Livestock (Restriction of Slaughtering) Order, 1940, no person is allowed to slaughter livestock for human consumption except by authority of the Ministry of Food. During the war years, fat livestock, instead of being auctioned to butchers, have been graded by a panel of graders, after which the animals become the property of the Ministry of Food, who are responsible for their slaughtering and handling. After slaughter the carcases are allocated to butchers in the City and the surrounding counties.

There are three dead meat depots in Edinburgh which are utilised for distribution, two at Fountainbridge and one at Gorgie abattoir. In the Clyde Report of 1943, the suggestion is made that a dead meat market and cold store with proper rail facilities should be built at Gorgie. It is most unfortunate that such an arrangement does not exist. Had these facilities existed, a great saving in transport would have resulted, and from a public health aspect there would have been less handling of meat and consequently less risk of contamination.

Abattoir.—Supervision has been maintained in accordance with the usual practice at Gorgie abattoir.

The number of animals passing through the slaughterhouse during 1946 is shown in the following table :—

Cattle	Oxen	17,405	
	Bulls	310	
	Cows	4,795	
	Heifers	5,315	
			27,825
Calves			9,228
Sheep			145,475
Swine			7,671
			190,199

There has always been a certain amount of fluctuation in the number of cattle slaughtered at the abattoir throughout a year, but during 1946 the number slaughtered in September, October and November was 40 per cent. of the total for the year. This was caused by the present tendency for farmers to concentrate on grass feeding, as due to the shortage of feeding stuffs they are unable to produce the numbers of fat cattle during the winter period. To facilitate control by the meat inspection staff an even rate of killing throughout the year would be preferable. The gross total of animals slaughtered in 1946 was higher by 3,493 than in 1945.

Carcases and Offal Condemned in Abattoir.—Carcases partially or wholly condemned in the City abattoir weighed 133·21 tons. To this there falls to be added 115·34 tons (weight estimated) of condemned offal, making a total of approximately 248·55 tons. Tuberculosis was responsible for 34·12 per cent. of the number of carcase seizures and for 36 per cent. of the number of offal seizures. Comparison between the weight of meat seized on account of tuberculous and non-tuberculous disease shows that tuberculosis was responsible for 62·66 per cent. of all beef seized and destroyed, for 12·76 per cent. of veal and 16·42 per cent. of pork. Details of the seizures are shown in the following tables :—

Number and weight of carcases in the different classes of animals condemned at abattoir during 1946 :—

Class of Animals.	Totally Condemned.		Partially Condemned.		Total Weight in lbs.
	Number.	Weight in lbs.	Number.	Weight in lbs.	
Oxen	32	16,807	540	46,052	62,859
Bulls	8	2,216	31	3,495	5,711
Cows	251	106,062	456	45,758	151,820
Heifers	10	15,110	130	10,254	25,364
Calves	135	4,772	6	37	4,809
Sheep	393	14,470	830	10,502	24,972
Swine	117	18,698	157	4,146	22,844
Total ...	976	178,135	2,152	120,244	298,379

Number of carcases condemned in the different classes of animals slaughtered during 1946, and causes of condemnation :—

Causes of Condemnation.	Cattle.										Sheep.		Swine.		Total.
	Oxen.		Bulls.		Cows.		Heifers.		Calves.						
	Total.	Partial.	Total.	Partial.	Total.	Partial.	Total.	Partial.	Total.	Partial.	Total.	Partial.	Total.	Partial.	
Tuberculosis	16	357	1	18	147	357	24	84	18	...	...	...	17	28	1,067
Neoplasms	...	...	...	...	...	3	...	...	...	...	1	4	1	...	9
Emaciation and Oedema	4	4	1	...	54	11	10	3	85	1	247	26	9	...	455
Fevered	2	...	1	...	24	...	1	...	10	...	9	...	13	...	60
Gangrene	1	...	...	...	1	...	...	...	...	...	1	...	4	...	7
Septic Pleurisy	1	21	...	3	1	9	1	8	1	...	15	442	6	20	528
Bruising	2	27	1	3	4	22	...	11	2	5	14	84	6	42	223
Peritonitis	...	27	...	4	...	17	1	9	1	...	4	48	5	5	121
Sepsis	...	80	1	4	6	23	1	11	8	...	19	153	16	32	354
Nephritis	...	2	...	...	...	2	...	...	...	...	...	1	1	...	6
Decomposed	...	...	...	...	...	...	...	...	...	...	3	...	...	...	3
Septic Pneumonia	1	...	...	...	...	...	1	1	1	...	5	3	5	...	17
Arthritis	...	...	...	...	...	...	...	...	...	...	...	17	1	5	23
Dead, Moribund and Ill-bled	4	...	3	...	3	...	...	...	4	...	71	...	20	...	105
Malformation	...	2	...	...	...	6	...	1	...	...	1	18	...	4	32
Ruptured	...	...	...	...	...	1	...	...	...	...	1	26	...	4	32
Actinomycosis	...	19	...	1	1	4	...	1	...	...	...	...	...	1	27
Acute Pericarditis	...	...	...	...	2	...	...	...	...	...	...	...	1	...	3
Mastitis	...	...	...	...	...	1	...	...	...	...	...	8	1	15	25
Uræmia	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2
Jaundice	1	...	...	...	...	...	...	...	4	...	...	...	1	...	6
Septic Metritis	...	...	...	...	7	...	1	...	...	...	...	...	3	...	11
Gangrenous Mastitis ...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2
Swine Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
Swine Fever	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4
Melanosis	...	1	...	...	...	...	...	1	...	...	...	...	...	...	2
Sarcocysts	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
	32	540	8	33	251	456	40	130	135	6	393	830	117	157	3,128

Comparison between tuberculous and non-tuberculous diseases as causes of condemnation in carcases of animals slaughtered in abattoir during 1946.

By Numbers.		Cattle.						Sheep.	Swine.	Total.
		Oxen.	Bulls.	Cows.	Heifers	Calves.	Total.			
Tuberculosis	Total	16	1	147	24	18	206	...	17	223
	Partial	357	18	357	84	...	816	...	28	844
Total and Partial		373	19	504	108	18	1,022	...	45	1,067
Non-tuberculous diseases	Total	16	7	104	16	117	260	393	100	753
	Partial	183	15	99	46	6	349	830	129	1,308
Total and Partial		199	22	203	62	123	609	1,223	229	2,061

	Tuberculosis. (lbs.)	Non-tuberculous Disease (lbs.)	Percentages Tuberculous.	
Oxen	46,742	16,117	74·36	70·55
Bulls	2,482	3,229	43·46	
Cows	104,884	46,936	69·08	
Heifers	19,290	6,074	76·05	
Calves	745	4,064	15·59	
Swine	3,937	18,907	17·23	
Sheep	...	24,972	...	

Number of organs condemned in the different classes of animals at abattoir during 1946 (excluding organs of animals totally condemned).

Organs Condemned.	Cattle.								
	Oxen.	Bulls.	Cows.	Heifers.	Calves.	Total.	Swine.	Sheep	Total.
Lungs :—									
Tuberculosis	1,130	43	1,353	296	3	2,825	45	...	2,870
Other Causes	645	12	81	45	30	813	432	804	2,049
Hearts :—									
Tuberculosis	...	...	...	...	...	...	...	...	...
Other Causes	41	2	33	3	1	80	95	4	179
Bowels :—									
Tuberculosis	319	15	407	57	...	798	3	1	802
Other Causes	46	4	70	12	2	134	29	33	196
Stomachs :—									
Tuberculosis	55	3	59	7	...	124	5	4	133
Other Causes	316	2	56	16	...	390	12	348	750
Spleens :—									
Tuberculosis	49	3	58	8	2	120	1	...	121
Other Causes	13	2	8	2	...	25	2	8	35
Livers :—									
Tuberculosis	375	13	269	72	4	733	32	3	768
Other Causes	4,877	28	1,037	433	38	6,413	144	1,130	7,687
Kidneys :—									
Tuberculosis	25	1	36	1	...	63	1	...	64
Other Causes	80	6	178	16	...	280	33	17	330
Udders :—									
Tuberculosis	...	...	27	...	...	27	...	...	27
Other Causes	...	...	325	4	...	329	20	3	352
Heads :—									
Tuberculosis	600	18	980	88	...	1,686	249	...	1,935
Other Causes	76	7	18	9	...	110	17	11	138
Skirts :—									
Tuberculosis	29	...	...	...	...	29	...	...	29
Other Causes	213	...	3	1	...	217	...	1	218
Feet :—									
Tuberculosis	1	1	...	...	...	2	...	...	2
Other Causes	495	...	...	...	...	495	...	...	495
Total	9,385	160	4,998	1,070	80	15,693	1,111	2,367	19,171

Percentage incidence of tuberculosis in animals slaughtered at abattoir during 1946 :—

Cattle	Oxen	10·19	
	Bulls	15·58	
	Cows	36·71	... ... 17·35
	Heifers	6·95	
Calves			0·25
Swine			4·21

Condemned Carcases.—As in past years, all condemned carcases have been treated at the I.W.E.L. plant at Gorgie abattoir and the residue sold for soap manufacture and fertilisers.

Cattle consigned from Kippen Area of Stirlingshire.—The most serious problem during the year was the consignment of cattle and sheep from the Kippen area of Stirlingshire, the animals there having been exposed to gas fumes caused by the destruction of redundant war material. These cattle, on arrival, were carefully inspected ante-mortem and, on showing unthriftiness, were rejected. Post-mortem revealed very little abnormality and after careful biological and bacteriological examinations, and tests by human volunteers, the carcases were passed for food. As a further precaution, all offal was condemned.

Live Stock Markets.—The fat stock market on a Tuesday has, during the war years, been replaced by the Ministry of Food Grading Centre. The store market has been held as usual on Wednesdays.

The newly-calved cows offered for sale in the market were subjected to inspection and examination. These have been very much reduced, the number being 477, an average of nine cows exposed for sale each week.

The veterinary inspection of the markets was carried out on behalf of the Ministry of Agriculture throughout the year by the Veterinary Department.

The following table shows the number of animals passing through the grading centre during 1946 :—

Cattle	8,724
Calves	2,479
Sheep	43,871
Swine	13,435
	68,509

Retail Shops, Street Hawkers, etc.—Periodical visits were made during the year to shops, etc., in which foodstuffs are prepared or exposed for sale. In addition, the fish markets at Newhaven were visited daily for the purpose of inspecting the fish exposed for sale there.

Number of visits paid to shops, etc., during 1946 :—

Butchers' Shops	1,550
Provision shops	3,958
Fishmongers' shops	485
Fruiterers' shops	1,367
Meat sales and cold stores	781
Live stock markets	312
Fishmarkets	318
Restaurants	372
Cooking centres	15
Fruit markets	593
Horse flesh shops	14
Bakeries	8
Canteens	8
Cooked meat shops	27
Factory canteens	9
	9,817

Inspectors observed and reported on the sanitary conditions of food premises and on the conditions under which foodstuffs were stored.

Foodstuffs seized, etc.—During the war years any food which was found to be unfit for human consumption was handed over to the Ministry of Food salvage division in order that such food might be utilised to the best advantage, *i.e.*, for animal feeding, drug extraction, etc. Throughout the year, 7,660 certificates for foodstuffs condemned as unfit for human consumption were issued by inspectors.

The weights of foodstuffs seized in markets, shops and other premises in the City during 1946 were as follows :—

	Weight in lbs.
Beef	52,936
Mutton	544
Pork	166
Venison	531
Sausages	2,702
Bacon	649
Poultry and game	214
Rabbits	129
Fish (fresh)	100,187
„ (tinned)	2,625
Eggs (Shell)	721
„ (liquid)	30
„ (dried)	26
Suets	53
Lard	56
Margarine	43
Butter	609
Cereals	15,612
Edible Offal	377
Cheese	74
„ (processed)	392
Milk (tinned)	6,606
Soup (tinned)	1,824
Vegetables (tinned)	5,339
„ (fresh)	118,452
„ (dried)	436
Fruit (tinned)	2,336
„ (fresh)	42,558
„ (dried)	3,822
Confectionery	872
Miscellaneous	26,735
	387,656 lbs.

Approval of Meat Storage.—Article 15 of the Public Health (Meat) Regulations (Scotland) 1932 requires persons selling meat from vans, carts, etc., who do not also keep an open shop for the sale of meat, to obtain from the local authority a certificate of approval of the accommodation provided for the storage of meat overnight. Six certificates were renewed during 1946, and the storage accommodation provided in each case is satisfactory.

PORT FOOD INSPECTION.

The usual supervision has been maintained as to the condition and soundness of foodstuffs landed at the port of Leith during 1946. No feature of outstanding interest has arisen.

The appended summary will serve to show the origin and the kinds of foodstuffs falling under the supervision of the Department at the port of Leith.

Imported foodstuffs inspected under the Public Health (Imported Food) Regulations (Scotland) 1932, during 1946 :—

Country of Origin.	Foodstuffs.	Number of Consignments.	
Holland	Vegetables	103	
	Fruit	129	
	Farina	1	
			233
Denmark	Bacon	22	
	Pig	1	
	Sausages	2	
	Fish (fresh)	82	
	Eggs	13	
	Seagulls eggs	1	
	Butter	18	
	Cheese	9	
			148
U.S.A.	Cereals	6	6
Canada	Cereals	21	
	Fish (tinned)	1	
	Vegetables	1	
	Cheese	1	
			24
Iceland	Mutton	1	
	Rusk meal	1	
			2
Spain	Fruit	1	1
Sweden	Fish (fresh)	147	147
Norway	Fish (fresh)	7	7
Faroe Islands	Fish (fresh)	12	12
North Africa	Fruits	1	1
West Africa	Ground nuts	1	1
Palestine	Fruits	1	1
			583

Imported foodstuffs condemned or rejected or re-exported at the port of Leith during 1946.

	Weight in lbs.
Wheat	9,885
Wheat sweepings	252
Flour	197,460
Flour sweepings	1,820
Rusk meal	280
	209,697
Equal to	93 tons, 12 cwts. 33 lbs.

Summary showing total diseased and unsound foodstuffs dealt with by the Department in the City during 1946 :—

	Weight in lbs.
At abattoir—carcases	298,379
—offal (weight estimated)	284,718
In shops, warehouses, etc.	387,656
At the port of Leith	209,697
	1,180,450
Equal to	526 tons, 19 cwts., 90 lbs.

DISEASES OF ANIMALS ACTS.

The Acts confer power on the Ministry of Agriculture to make Orders for the control and prevention of animal diseases, to govern the import and export of animals and carcases, to control the conditions of transport of animals by land and sea, and for other similar purposes. The following diseases are subject to administrative control by means of Orders made by the Minister.

Anthrax.
Foot and mouth disease.
Parasitic mange of horses.
Sheep scab.
Swine fever.
Bovine tuberculosis and contagious abortion (for certain purposes only.)
Cattle plague or rinderpest (1887).
Contagious bovine pleuro-pneumonia (1898).
Glanders and farcy (1928).
Epizootic lymphangitis (1906).
Rabies (1922)
Sheep pox (1850).

There have been no cases of the last six diseases in Great Britain since the dates shown against each.

Anthrax.—Nine cases of suspected anthrax were notified on farms within the City boundary but all proved negative on investigation. In addition 6 dead cattle, 65 sheep, 18 pigs and 3 calves were found at the markets, railway siding and abattoir. These were all examined for anthrax before disposal. They were all negative.

Foot and Mouth Disease.—Fifty-four outbreaks of this disease were confirmed in Great Britain during 1946 entailing the slaughter of 5,642 animals. This compares favourably with 1945 when there were 129 outbreaks and 10,549 animals were slaughtered. Movement of animals throughout the City was never restricted, the nearest outbreak being at Dunipace, Stirlingshire.

The following orders, which are more or less complementary to the principal foot-and-mouth disease orders, have continued in operation, and the observations and visits necessary for their enforcement have been made :—Foreign Hay and Straw Order ; Foot-and-Mouth Disease (Packing Materials) Order ; Foot-and-Mouth Disease (Boiling of Animal Foodstuffs) Order ; Importation of Carcases (Prohibition) Order ; Importation of Meat, etc. (Wrapping Materials) Order ; and Movement of Animals (Records) Order.

In connection with the Movement of Animals (Records) Order, a check of the record books of stockowners in the City was again made with the assistance of the police.

Parasitic Mange.—No suspected disease was reported during the year.

Sheep Scab.—The regulations made by the local authority under the Sheep Scab Order, which require the dipping of all sheep in the City during the period 15th July to 31st August, and again during the period 1st September to 30th November, have remained in force. In terms of the regulations, 19,639 sheep were dipped throughout the year.

Swine Fever.—Six cases of swine fever were investigated throughout the year and disease was confirmed in two cases. This shows a great improvement on the year 1945 when there were 45 cases and 21 confirmed.

Regulation of Movement of Swine Order.—One hundred and sixty-nine pigs were moved in terms of this Order under licence from scheduled areas in England to various premises in the City, subject to detention and isolation for twenty-eight days after arrival. Periodical visits were made to these premises with the double object of seeing that the conditions of the licence were fulfilled and to maintain observation on the health of the pigs.

Bovine Tuberculosis.—Nine animals were dealt with under the Tuberculosis Order of 1938.

In addition, all calves at Gorgie abattoir which showed lesions of congenital tuberculosis on post-mortem, were reported to the Divisional Inspector of the Ministry of Agriculture. The dams concerned were frequently traced and dealt with under the Tuberculosis Order.

Control of Dogs Order.—This Order and the regulations made in terms thereof require (1) the wearing by dogs of a collar bearing the name and address of the owner, and (2) the maintenance of dogs under effective control between sunset and sunrise. The object of the order is the prevention of sheep worrying.

Importation of Animals.—(1) Irish Cattle. The orders which control the importation of Irish cattle provide that the imported cattle must be landed at ports approved for the purpose, where, on arrival, they are inspected and thereafter they may be moved on licence, in the case of fat cattle, to a slaughterhouse, either direct or through an authorised market, and, in the case of store cattle, to (*a*) a specially authorised market, or (*b*) farms or other premises where they must be detained for six days after arrival. 14,290 Irish cattle were received at Gorgie market under licence from ports, and 734 licences were issued authorising movement of these cattle from the market; 1,157 Irish cattle were moved to farms in the district of the local authority from the market or direct from the ports, and were maintained under observation during the period of detention. 5,312 Irish cattle were licensed from the markets or ports to Gorgie abattoir.

(2) **Dogs and Cats.**—The Importation of Dogs and Cats Order is intended to protect Great Britain against the introduction of rabies through the agency of canine or feline animals brought from overseas. The landing of such animals in Great Britain is prohibited except under licence granted by the Ministry of Agriculture. After landing, the animals must be detained for six months in a place of detention or quarantine approved by the Minister for the purpose. During the year 37 canine and feline animals were received and detained in the City in quarantine. They were maintained under observation and police supervision.

Certification for Export.—The Dominions of Canada and New Zealand require disinfection and certification of straw and hay used for packing goods exported from this country to the Dominions. Facilities are provided for the disinfection of straw and hay used for packing, at an old municipal disinfecting station, at a small charge to cover costs. During the year 28 certificates were issued to cover goods exported in disinfected straw. Surprise visits were paid, from time to time, to the packing establishments of exporters to ensure that the conditions necessary for certification were being complied with.

In addition to the above, certificates were granted, after the necessary inspection to cover export of pigs to South Georgia, of wool to the U.S.A., and bags and bagging to Sweden.

MACKENZIE & STORRIE, Ltd., Printers, LEITH.